American Fruit Grower

JANUARY • 1952

This Iowa Farmer Says:
"WHERE OTHER TIRES HANG UP
Firestone
CHAMPIONS
GO RIGHT ON THROUGH"

"I farm 210 acres of black loam, and for the kind of soil conditions I have, I like these Firestone Champions best. When the ground is hard, they bite in and take a good hold — and when it's soft, they take me through where other tires hang up."

W. E. WEDEMEYER, DONAHUE, IOWA.

MORE AND MORE farmers are switching to Firestone Champion Open Center Tires — and glad of it! They find that the bars take a sharper bite because they're tapered, take a stronger hold because they're curved. And, because the tread of this tire is wider and flatter, it has more bar rubber to grip the soil for extra traction, more bar rubber to stand up on the road for extra traction life.

Try a set of Firestone Champion Open Centers on your tractor. Or, if you prefer Firestone Champion Traction Center Tires for your soil conditions, you can get them, too. Only Firestone offers you a choice between the most advanced Open Center and the one and only Traction Center Tire on the market today.

Always Buy Tires Built By FIRESTONE, Originator of the First Practical Pneumatic Tractor Tire

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Entered as second-class matter at Post Office at Willoughby, Ohio under the Act of March 3, 1879. Additional entry at Mount Morris, Illinois

KEEP SCAB OUT WITH DU PONT "FERMATE"

TOUGH ON DISEASE. "Fermate" fungicide gives foliage and fruit of apples and pears sure protection against scab. It also controls cedar-apple rust, black rot, sooty blotch and bitter rot.

EASY ON BLOSSOMS, LEAVES AND FRUIT. "Fermate" is safe to use through the scab season, provides disease control without burning or stunting even tender young growth. Safe in hot weather, too.

BETTER YIELD AND QUALITY. Leaf growth reaches full vigor when protected with "Fermate." Helps make higher yields of larger fruit with better finish.

COMPATIBLE WITH OTHER CHEMICALS. You can use "Fermate" safely with most pest-control products. For exceptional wetting and covering power, use Du Pont Spreader Sticker in the spray mixture.

IDEAL FOR MANY FRUITS. "Fermate" also controls grape black rot, brown rot of stone fruits, peach scab, cherry leaf spot, cranberry fruit rots and raspberry anthracnose and leaf spot.

See your dealer now *for Du Pont "Fermate" fungicide and other proved Du Pont pest-control products. Ask him for free booklets, or write to Du Pont, Grasselli Chemicals Department, Wilmington, Delaware.*

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*REG. U. S. PAT. OFF.

On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.

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LIVEWEIGHT TRACTION

gives farming a real boost

ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

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The hydraulic TRACTION BOOSTER in the Allis-Chalmers CA and WD Tractors changes dead-weight to *live*weight. Weight of both tractor and implement is automatically shifted to bear down on the drive wheels when the soil is stubborn and the tillage is tough.

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TOTAL	$1.00	only 50.2¢

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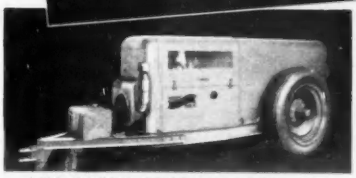
Ordinary spraying methods waste material, time, labor and money. Farquhar mist spraying assures complete coverage at a saving of practically 50%.

Orchard and grove operators everywhere praise the performance of this remarkable Iron Age machine. They like the complete coverage they get with concentrate spraying. They like the other Iron Age features too, such as double axial blowers that allow efficient spraying from either side, special discharge orifices that direct proportionate volumes of air at uniform velocities to top and bottom branches, high pressure break-up that assures right droplet size and light weight that permits early spraying on soft ground.

One-man operation provides quick, easy maneuvering, saves time and labor. Streamlined design gives low head room and protection from low-hanging branches.



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Whatever your requirements, Iron Age offers you the right orchard or grove model to give you greater coverage at less cost—power take-off tractor-trailer models or engine driven units in capacities and pressures to meet your needs.

Iron Age High Pressure Pumps give you pressure to spare *and thorough penetration*. Capacities: 6 to 50 gallons per minute.

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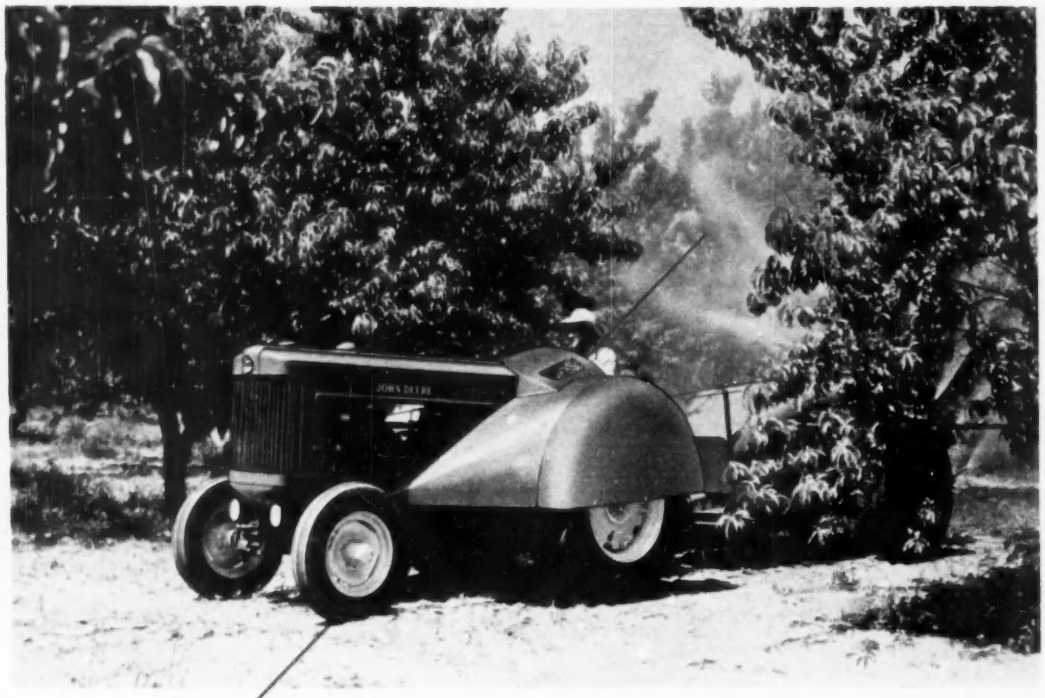


On every count you're dollars ahead with a John Deere model "AO"

Check the factors that increase orchard profits—lower operating costs . . . time and labor savings . . . damage-free work . . . rock bottom maintenance expense—on every count you'll be on the "plus" side . . . be dollars ahead . . . with the John Deere "AO" Orchard Tractor.

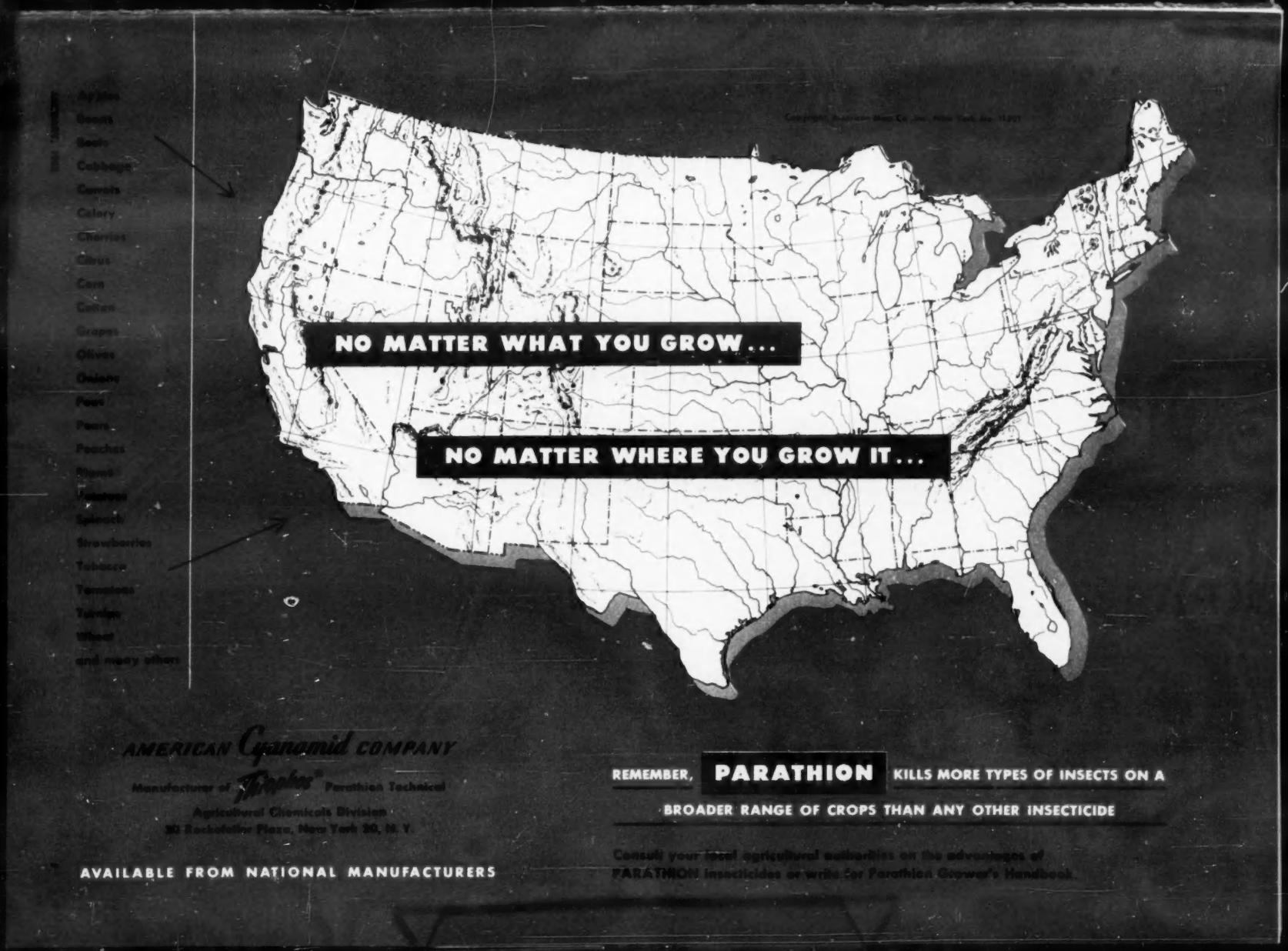
The outstanding "AO" is available with your choice of gasoline or all-fuel engine. And whichever you choose, you'll get maximum efficiency and economy from every fuel dollar, for these rugged, two-cylinder engines —with heavier rotating parts and *exclusive* cyclonic-fuel-intake—squeeze the maximum amount of power from every drop of fuel used. Six forward speeds and smooth, positive hydraulic Powr-Trol mean more work . . . easier work every hour, every day. The multi-speed transmission provides the right speed for every job and Powr-Trol eliminates slow-downs or stops . . . gives you easy, accurate, from-the-seat control of drawn tools.

The low, shielded, streamlined design of the "AO" lets you work in tight quarters . . . under low-hanging branches with minimum damage to fruit or foliage and the ventilated cowl gives full operator protection yet allows a full view ahead. Exclusive John Deere *two-cylinder* design with its fewer, stronger, heavier parts offers *unequalled* dependability . . . rock-bottom maintenance economy . . . longer tractor life.

See your John Deere dealer and learn how the greater economy . . . the faster working speeds . . . the streamlined styling of the "AO" can mean the greatest operating economy you've ever known.

JOHN DEERE

MOLINE ILLINOIS



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Manufacturer of Thiphos® Parathion Technical

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30 Rockefeller Plaza, New York 20, N. Y.

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Consult your local agricultural authorities on the advantages of PARATHION insecticides or write for Parathion Grower's Handbook

JANUARY 1952
VOL. 72 No. 1

CONTENTS

THIS MONTH'S COVER

The striking picking scene is a work of George M. Ross, well-known Cleveland, Ohio, water color artist, who each month also prepares the editorial layouts of the feature articles which appear in AMERICAN FRUIT GROWER.

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Editorial Staff
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ULYSSES PRENTISS HEDRICK

FRUIT GROWERS everywhere will mourn the passing of Dr. Ulysses Prentiss Hedrick on November 14, 1951. Dr. Hedrick was the sixth director of the New York Agricultural Experiment Station, serving in that capacity from 1928 to 1938, when he retired. Prior to that he headed up the horticultural work of the station from 1905 until his appointment as director. He graduated from Michigan State College in 1893 with the B. S. degree and received the M. S. degree from the same institution in 1895. Hobart College conferred the Sc. D. degree upon him in 1913 and Utah State College in 1938.

Before coming to Geneva, Dr. Hedrick's professional career embraced service with Michigan State College from 1893-95; Oregon State College, 1895-97; Utah State College, 1897-99; and Michigan State College again, 1899-05 as head of the department of horticulture.

Numerous organizations, scientific and otherwise, gained immensely from Dr. Hedrick's participation in their activities. The American Pomological Society, the Society for Horticultural Science of which he was a past president, the New York State Agricultural Society, the New York State Historical Association, the American Association for the Advancement of Science, various local societies, including Geneva Rotary and the Geneva Historical Society, to mention a few.

First President New York Society

One of his outstanding contributions to New York horticulture was the part he played in the union of the New York State Fruit Growers Association and the Western New York Horticultural Society in 1919 to form the present New York State Horticultural Society, of which he was the first president.

Dr. Hedrick was the recipient of many honors. Two of which he was particularly proud were the George Robert White medal, bestowed upon him by the Massachusetts Horticultural Society in 1926 in recognition of his work in the breeding of new varieties of hardy fruits, and the Wilder medal, awarded by the American Pomological Society in 1930, also for his contributions in fruit breeding.

Prolific Writer

But Dr. Hedrick probably will be remembered by more people for his writings than for his researches, although of course the former grew out of the latter. The "fruit books," as the series of monographs on the hardy fruits published by the New York Experiment Station under his guidance are generally known, have become synonymous with his name and the experiment station the world over. In addition, he was widely known for his writings in scientific journals, in a long list of experiment station bulletins, in the popular press, and for his books on horticultural topics. *The History of Agriculture in the State of New York* is one of his best.

And after retirement, he became even more prolific, if that were possible, and produced several books with still others in various stages of preparation. Among these latter offerings perhaps the best known and certainly one of the most readable is *The Land of the Crooked Tree*, a partly biographical account of his early life in Michigan. His last book, *A History of Horticulture in America to 1860*, published in 1950, won instant praise from professional and lay sources alike.

But to those who were closely associated with Dr. Hedrick through the years, the memories will be of a genial and gracious personality and of many happy hours spent in company with him and Mrs. Hedrick in the warm hospitality of their home. The testimonial to Dr. Hedrick conferred by the New York State Historical Association in 1948 speaks for many who knew him well:

"Doctor Ulysses Prentiss Hedrick —distinguished scientist, historian, scholar, and exemplar of the art of gracious living."—*James D. Luckett.*

SCHEDULES GO LIKE Clockwork

WITH

"CAT" DIESEL TRACTORS ON THE JOB!

"Cat" D4 Tractors working in the Sullivan Orchard near Yuba City, Calif. Shown pulling a power takeoff-driven 400 gallon sprayer, and a 500 gallon engine-driven job. "Live" power takeoff, a feature of "Cat" Orchard Tractors for many years, speeds up spraying.

■ When a job needs doing, "Caterpillar" owners count on getting it done on time. It's a good feeling to know that you can depend on your orchard power. That when you need it, your "Cat" Diesel Tractor will start right off. And keep going all season long. With power and traction to handle the toughest going . . . *to make orchard schedules go like clockwork!* Then, during slack seasons, your "Caterpillar" Diesel Tractor turns from routine orchard work to grubbing out old trees . . . leveling . . . building roads and other specialized jobs . . . work that only earth-gripping tracks backed by dependable Diesel power can handle so well.

Include "Caterpillar" power in your plans for the future. But remember, "Caterpillar" power, traction, economy and dependability have made "Cat" Diesel Tractors essential for national defense, too. Make your present equipment last until you can take delivery on your new "Cat" Diesel Tractor. Your Dealer will help you in every way he can.

NOEL DODSON, Foreman for the J. L. Sullivan Orchard, Yuba City, Calif., feels this way about "Caterpillar" Diesel Tractors: "I've worked with these machines since they were first made, and I say there are none better. You get the work done when it needs to be done. Our Dealer service is 100% O.K."

CATERPILLAR TRACTOR CO.
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PLIOFILM's transparency means speedy sales—customers use less than half as much time to select product.

Tough and tear-resistant, PLIOFILM safely holds as much as 10 pounds. Customers buy more.

Stands rough handling in transit. Less breakage.

Moistureproof, seals in flavor and quality. Insures repeat sales.

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Good things are better in

Pliofilm

3-way protection against air, moisture, liquids

Pliofilm, a rubber hydrochloride. T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

THE FUTURE IS WHAT YOU MAKE IT

A Renowned Inventor and Scientist Writes an Inspiring Message

Charles F. Kettering, who has figured so prominently in the development of the automobile and who is Director of research for the General Motors Corporation, combines unusual talents and abilities with a keen philosophy. His story points out that only our own egotism can prevent us from seeing the infinite opportunities before us.—*Ed.*

IT IS often difficult for us of this generation to realize just what has happened in the last 50 years to change the lives of those who live on farms. My boyhood was spent on a farm near Loudonville, Ohio. It was a busy place—everybody worked from sunup to sundown. Recently I read that using horses it took 141 days of field work to grow and harvest 100 acres of corn. The rubber-tired tractor has cut that time down to 50 hours.

And, of course, you had to grow the feed for the horses. Everytime you don't feed a horse you can feed four and one-half people. Since the tractor has reduced the horse and mule population in the last 25 years by about 18 million, that means we can feed about 80 million more people without cultivating a single acre more of ground. But I don't have to tell modern-day farmers what the tractor has meant to them. It prepares the ground, seeds and cultivates crops, sprays fruit trees and cultivates the orchards; its attachments dig post holes, lift heavy loads, and saw wood. It has multiplied the farmer's leisure hours and his crops and has raised the standards of living for all of us.

But still we have the pessimists among us—those who say we are robbing our natural resources. Of course we know what we take out of the soil we can put back into it, but how about the often-predicted fuel shortage, the day when we run out of the life blood for our tractors, trucks, and automobiles? An automobile consumes its weight in fuel every year. Up in Maine they raise about 800 bushels of potatoes per acre or about 4,000 pounds dry weight. There is no reason why chemistry cannot convert that into fuel for our internal combustion engines. In other words, it is perfectly possible to raise each year on an acre of ground sufficient fuel to drive your car or your tractor for a year.

Let's take another source of power—the Sun. We know all our energy comes from the Sun. It evaporates water and we get hydroelectric power. It stores up enormous electric potentials in our lightning and grows our vegetation. For 25 years I have been conducting research on this business of growing things and we are just beginning to see the possibilities. Only 60 per cent of our land is grazed or farmed. That leaves 40 per cent with wonderful sunshine—40 per cent to use as a good place for non-biological food synthesis. We can visualize great vats or bins exposed to the sunlight out there making the material that will run an engine at the other end of the line.

The only limitations, or fences, to our future progress will be the ones we erect ourselves. We think we have made tremendous strides in the last 50 years—and we have. But those achievements will be dwarfed by the things to come if we just keep our minds open and willingly contribute each day an honest day's work.

C. F. Kettering

APPLES

Small Northwest Crop

Apple production in the western states took a sizable drop in 1951. Interestingly enough, however, all of the reduction was in the states of Washington, Oregon, and Montana. The other western states actually showed an increase over the previous year.

The state of Washington, which normally produces one out of every four apples grown in the United States, had an estimated crop of 20 million bushels, which compares with 35½ million the year before. This 1950 Washington state figure of 35½ million is slightly larger than the estimated production of all the western states in 1951.

The principal reason for the very short crop in the Northwest was the extremely cold weather at bloom time. Temperatures were recorded as low as 21° while Delicious were in full bloom. Winesaps and Romes were somewhat affected but the Delicious variety was reduced to less than half of normal. The crop also was affected by scattering tree injury from the previous cold winter.

Over 15,000 carloads of Red and Regular Delicious were shipped from the state of Washington in 1950-51, whereas this season the figure will be somewhat under 6,000 carloads. On the other hand, the state will ship over 7,500 cars of Winesaps this season compared with approximately 11,000 from the 1950 crop.

Harvesting Continues As Major Cost Item

Continued improvements in cultural practices and insecticides and the expanding use of chemical thinning sprays have tended to keep production costs more or less constant. These improvements have compensated, somewhat, for increased cost of labor and material. Harvest, however, continues to be a major expense item. Many growers paid 15 to 20 cents a box to get their fruit picked last fall.

Prices Are Encouraging

F.o.b. prices for Washington state apples have been considered quite favorable so far this season. Combination Red Delicious, average run of sizes, have been selling at $4.25 to $4.75 a box; Regular Delicious $3.25 to $4; a few early sales on Winesaps $3.25 to $3.50. In spite of heavy production in other areas, distribution has been very good and movement has been satisfactory at these prices.

It is generally conceded that the demand for Washington apples is the result of a reputation for quality and uniformity, plus the fact that the advertising and promotional program, which has been in operation for 15 years, has the American consumer asking for these Northwest apples by name.—*Harold Copple, Washington State Apple Commission*

*Preliminary

ALL METHODS OF SALE—By State

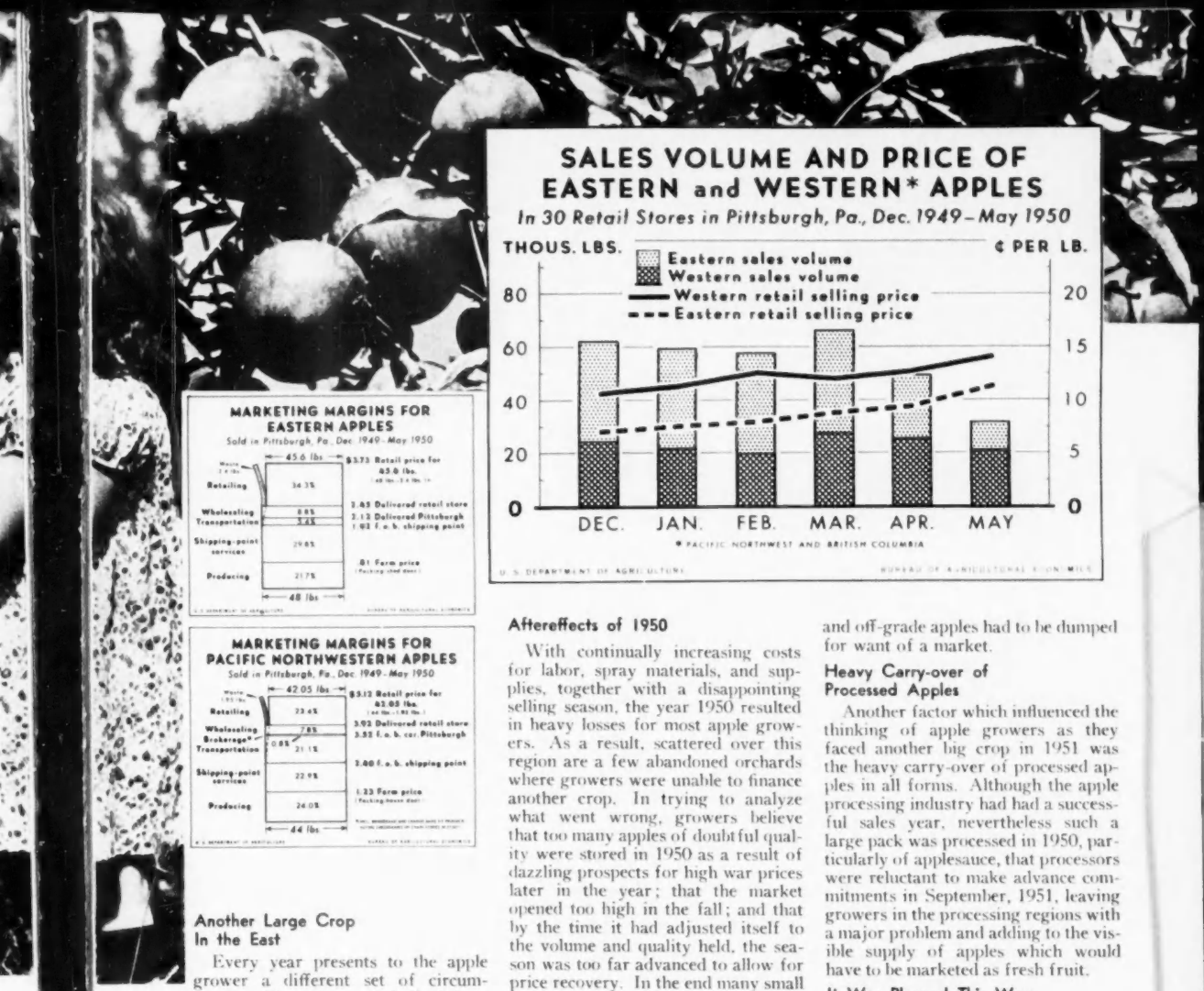
Season Average Price Per Bushel Received by Grower

	1950	1951*		1950	1951*
Maine	1.90	1.95	Kans.	2.60	2.25
N. H.	1.85	1.95	Del.	2.25	1.70
Vt.	1.90	2.00	Md.	1.60	1.50
Mass.	1.95	1.80	Va.	1.30	1.10
R. I.	2.00	1.90	W. Va.	1.45	1.30
Conn.	2.10	2.00	N. C.	1.70	1.75
N. Y.	1.30	1.10	Ky.	2.10	2.10
N. J.	1.90	1.65	Tenn.	2.15	1.90
Pa.	1.40	1.15	Ark.	2.45	1.75
Ohio	1.90	1.75	Mont.	2.20	2.60
Ind.	2.15	1.65	Idaho	1.45	1.60
Ill.	2.15	1.60	Colo.	2.40	1.80
Mich.	1.40	1.40	N. M.	2.35	2.30
Wisc.	1.90	2.00	Utah	2.60	1.60
Minn.	2.40	1.85	Wash.	1.67	3.20
Iowa	2.30	2.10	Ore.	1.39	2.38
Mo.	2.30	2.00	Calif.	1.35	2.25
Nebr.	2.30	2.10			

FRESH

Season Average Price Per Bushel Received by Grower

1935	.72	1944	2.21
1936	1.04	1945	3.01
1937	.64	1946	2.46
1938	.82	1947	1.79
1939	.64	1948	2.13
1940	.50	1949	1.66
1941	.96	1950	1.59
1942	1.47	1951*	1.72
1943	2.39		



Another Large Crop In the East

Every year presents to the apple grower a different set of circumstances. Since the sum of all of these determines whether or not he will have a profitable year, he anxiously watches each season develop. Some of these conditions are his own personal responsibilities. Some he can influence, together with his fellow-growers, through the activities of the various apple promotional organizations which make up the membership of the National Apple Institute. And some are decided by weather and economic forces beyond his individual or collective control.

Taking the East as a whole it appeared in September that another huge crop was in prospect. Not in the memory of any Eastern fruit grower has this region produced three large crops in a row, but 1951 has proved that it can be done. It is thought that new insecticides and fungicides, less damaging to the foliage, may leave the trees with enough vigor to produce successive large crops.

Aftereffects of 1950

With continually increasing costs for labor, spray materials, and supplies, together with a disappointing selling season, the year 1950 resulted in heavy losses for most apple growers. As a result, scattered over this region are a few abandoned orchards where growers were unable to finance another crop. In trying to analyze what went wrong, growers believe that too many apples of doubtful quality were stored in 1950 as a result of dazzling prospects for high war prices later in the year; that the market opened too high in the fall; and that by the time it had adjusted itself to the volume and quality held, the season was too far advanced to allow for price recovery. In the end many small and off-grade apples had to be dumped for want of a market.

PRODUCTION—Million Bushels

1938	106	1945	67
1939	139	1946	119
1940	111	1947	113
1941	122	1948	88
1942	127	1949	133
1943	87	1950	123
1944	121	1951*	113

CANNING

Season Average Price Per Ton Received by Grower

	1948	1949	1950*
New York	57.40	37.00	53.20
Potomac Valley	43.90	37.20	52.30
Pacific Northwest	20.60	22.40	32.70

CIDER & VINEGAR

New York	21.80	10.20	11.60
Pennsylvania	16.70	10.40	14.60
Virginia	12.50	10.80	13.30
West Virginia	12.50	10.80	15.40
California	17.90	13.80	27.10

DRYING

California	18.80	14.60	37.50
Washington	15.70	7.80	19.10
New York	24.40	15.40	23.40
West Virginia	**	14.60	20.00

**Quantity negligible

FREEZING

Virginia	50.00	47.50	51.30
Washington	17.00	13.00	25.70
California	37.50	23.30	47.90

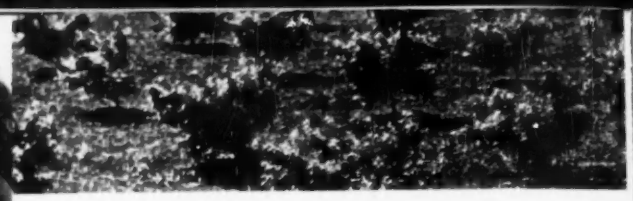
Heavy Carry-over of Processed Apples

Another factor which influenced the thinking of apple growers as they faced another big crop in 1951 was the heavy carry-over of processed apples in all forms. Although the apple processing industry had had a successful sales year, nevertheless such a large pack was processed in 1950, particularly of applesauce, that processors were reluctant to make advance commitments in September, 1951, leaving growers in the processing regions with a major problem and adding to the visible supply of apples which would have to be marketed as fresh fruit.

It Was Planned This Way

Smarting from the 1950 marketing experience, the entire apple industry examined the record in an attempt to avert another catastrophe. By mutual agreement it was decided to urge all growers to pick only those apples which seemed likely to return them a profit after adding the marketing costs; to offer fine apples at the start of the season in order to gain consumer confidence; to keep a steady supply moving through the markets from the very start of the season; to request a surplus disposal program (school lunch) to help stabilize the early market; to use the promotional organizations to advertise apples; to negotiate with retailers for a series of special concurrent apple sales; and to seek the help of marketing officials and extension service personnel in broadcasting these recommendations to all.

(*Continued on page 46*)



PEACHES

Spotty Production

The peach crop of 1951 presented another interesting distribution pattern of the commercial yield. The Atlantic Seaboard states came through generally with substantial yields, as did California and the Northwest states. Colorado had a light yield, and in a dozen or so of the Mississippi Valley states there was hardly any commercial yield. The season finished with a good crop in New York and Ohio and a fairly light crop in Michigan. The total yield according to the October 1 USDA report was 60,932,000 bushels. The National Peach Council estimated the commercial crop at 52,790,000 bushels as production came on in midsummer.

PRODUCTION—Million Bushels

1936	54	1946	82
1937	64	1947	87
1938	58	1948	82
1939	75	1949	65
1940	67	1950	75
1941	41	1951	53
1942	78	1952*	70

As a result of the light crop in the Mississippi Valley there was a strong movement into this region of western and eastern production. In the southern border of production from Texas eastward there was some chilling effect injury during the winter months, but this trouble was not as aggravating as in other years. More attention is being given in the newer plantings in the South to varieties with light chilling requirements, and this shift may go far in overcoming this difficulty.

The California production in 1951 enjoyed an unusually wide distribution and because of the high quality of the crop it was well received. There were some reports of difficulty in Utah with small fruit as a result of overbearing in some commercial areas.

FOREIGN PRODUCTION

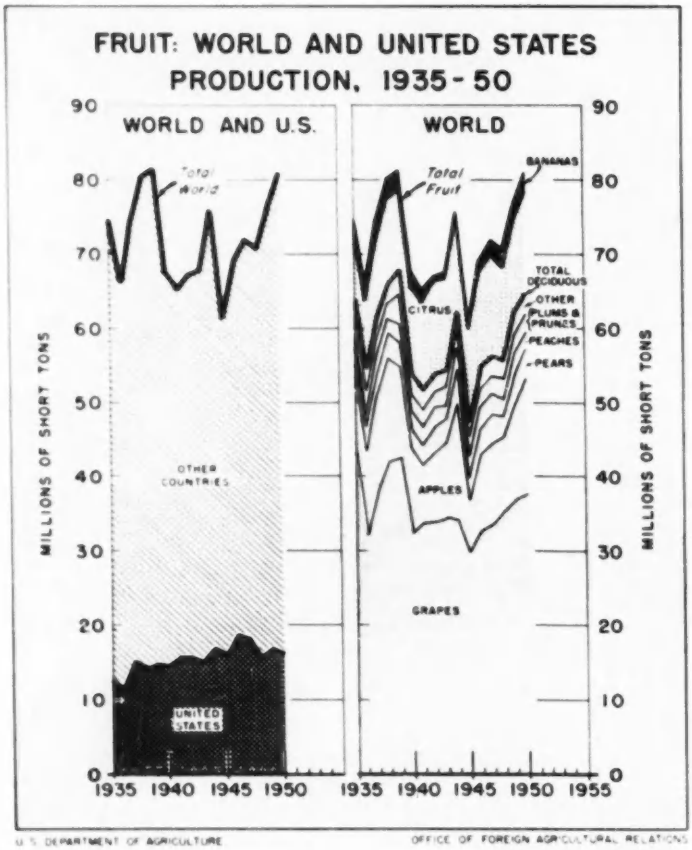
	1949	1950	1951*
	Thousand bushels		
Italy	10,638	12,985	12,584
Argentina	6,500	4,600	6,000
France	3,948	5,211	5,000
Australia	2,500	2,400	2,500
Mexico	1,985	2,251	2,750
Japan	1,000	1,395	1,578
Canada	2,611	1,500	1,753
Other countries	2,662	7,108	9,286
Total, foreign	31,844	37,450	41,451

*Preliminary.

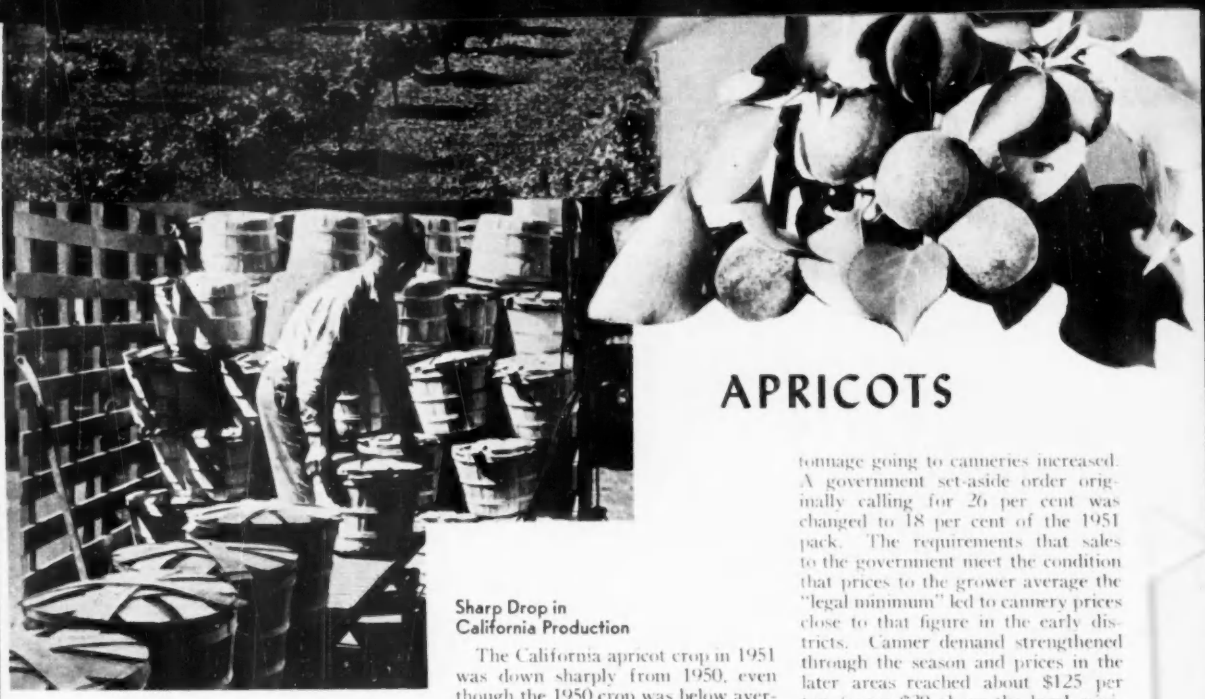
A noticeable step-up in the use of improved machinery is apparent. Heavy-powered cultivators; improved spraying machinery; more careful handling in the sheds; the use of conveyors, pallets, etc., in loading; more extensive use of the latest type fan cars; better ladders; and improved lidding and nailing equipment are all in evidence. There is a greater appreciation of the necessity of better cooling equipment and better air circulation in truckloads. The increased use of trucks for both short and long hauls was very evident during the 1951 season.

Packaging

In the East the bushel basket or tub continues to be the dominant peach package, although there is increasing acceptance of the wirebound box. Smaller packages such as the half bushel were used for the early market varieties. The West continues to use the western box for long distance shipping. This pack is standard in the market, and the Midwest and Eastern



U. S. DEPARTMENT OF AGRICULTURE — OFFICE OF FOREIGN AGRICULTURAL RELATIONS



APRICOTS

trade have learned to associate it with Western production. While it is still a bulk pack, it is liked by the retail trade because of the closer grading and sizing.

PRICES

On Tree Return-to-Grower

	1950	1951*
Colorado	2.10	3.80
Georgia	3.05	1.20
Pennsylvania	.90	1.00

ALL METHODS OF SALE

Season Average Price Per Bushel Received by Grower

	1950	1951*		1950	1951*
N. H.	3.60	3.00	Ga.	3.90	2.05
Mass.	3.60	3.00	Fla.	2.50	2.50
R. I.	3.60	2.80	Ky.	3.00	2.60
Conn.	3.70	2.80	Tenn.	3.10	2.10
N. Y.	2.20	1.95	Ala.	3.45	2.50
N. J.	2.65	2.00	Miss.	3.10	3.10
Pa.	2.15	2.15	Ark.	2.80	2.65
Ohio	2.60	2.45	La.	3.20	3.20
Ind.	2.55	3.00	Okla.	2.25	2.20
Ill.	2.40	2.85	Tex.	2.90	2.65
Mich.	3.70	3.00	Idaho	4.00	2.85
Mo.	2.65	3.00	Colo.	2.70	3.85
Kans.	2.45	2.40	N. Mex.	3.75	2.50
Del.	2.50	1.90	Utah	3.85	1.85
Md.	2.50	1.90	Wash.	4.38	2.75
Va.	3.05	1.90	Ore.	3.70	3.25
W. Va.	2.35	1.85	Calif.:	1.70	1.94
N. C.	4.45	2.00	Cling	3.45	1.86
S. C.	3.75	2.00	Free	2.13	2.13

The Variety Picture

As a result of increased planting of varieties other than Elberta an attempt was made in 1951 by the National Peach Council to acquaint the trade with the timing and the extent of the yield of some of the earlier varieties. As the trade becomes better acquainted with some of these new varieties, resistance to them is lessening. There is some confusion in the trade, however, as to the identity of the new varieties and there is a tendency to describe them in such general terms as "yellow freestones" or as Elberta-type peaches.—*M. J. Dorsey, National Peach Council*

Sharp Drop in California Production

The California apricot crop in 1951 was down sharply from 1950, even though the 1950 crop was below average. The estimate had been placed at 164,000 tons, an increase over early estimates of 156,000 tons. In 1950 the production was 196,000 tons. The 20-year average is 216,000 tons.

The reduction in tonnage can be attributed to the tendency of the apricot toward alternate bearing and to the effect of an unusually warm fall and early winter. Bud set was below normal, and many buds dropped before blossom time. Weather at blossoming time was cool during the early bloom but good during the later portion. With the straggly bloom characteristic of a spring following a warm winter, there was a tendency for a higher than normal percentage of fruit to set on shoots rather than spurs. It is more difficult to bring such fruit to good size.

PRODUCTION—Tons

	1949	1950	1951*
California	165,000	213,000	164,000
Washington	26,400	1,700	6,200
Utah	6,200	400	6,400

Labor Problems Affect Prices

The shipping season resulted in a sharp reduction in carlot movement. Only 487 cars moved as compared with 732 in 1950. Part of the drop at least must be charged against labor difficulties in the Winters district, which ships about half of the cars moving east. A wildcat strike of packing house workers, accompanied and followed by interference with picking crews, disorganized handling of a portion of the crop. This resulted in lower prices for some of the crop and an overall drop in the average delivered price per 25 pound package from $3.69 in 1950 to $3.46 in 1951.

In spite of the reduction in crop the tonnage going to canneries increased. A government set-aside order originally calling for 26 per cent was changed to 18 per cent of the 1951 pack. The requirements that sales to the government meet the condition that prices to the grower average the "legal minimum" led to cannery prices close to that figure in the early districts. Canner demand strengthened through the season and prices in the later areas reached about $125 per ton (some $20 above the legal minimum) with fruit of unusually good size and quality bringing slightly more. Prices in 1950 ran about $60-$65 per ton. The pack for 1951 is estimated at about 3,760,000 cases calculated on the basis of 24 No. 2½ cans per case.

PRICES

All Methods of Sale—By State

Season Average Price Per Ton Received by Grower

	1949	1950	1951*
California	76.20	94.70	119.00
Utah	44.00	140.00	110.00
Washington	46.60	137.00	139.00

CANNED—By States

	1948	1949	1950*
California	57.00	52.00	68.00
Utah	12.00	33.00	
Washington	43.00	31.00	140.00

Bigger Crop in Northwest

The Washington and Utah crops were up after the disastrous year of 1950 to 6,200 and 6,400 tons, respectively. World production is reported to be off 5 per cent from 1950 with an indicated total of 623,500 tons. The California production for 1951 is only 38 per cent of the world total. It has often approached 50 per cent.

Bearing acreage in California remains at about the same figure as in 1950, 45,700 acres. A drop from 81,400 acres in 1931 has occurred. The indicated yield per acre is 3.5 tons.

With the canners taking a larger proportion of the fruit than is customary the 1951 dried output is down sharply. Prices have not reacted to the short supply to the extent that might be expected. Low demand for dried fruit in export channels may be the dominant factor.—*E. L. Proebsting, University of California.*

CHERRIES

Red Tart Cherries

A review of the 1951 red tart cherry season raises questions in the minds of most cherry growers and processors—some of which may be answered and some not.

1) Are new plantings of red tart cherries, with consequent additional production, going to cause additional prosperity or disaster?

2) Will one region "outdo another" in efficient production and sales outlets?

3) Can the red tart cherry industry as a whole survive if growers again receive prices comparable to the depression years?

4) How much further can the resourcefulness of the National Red Cherry Institute increase cherry consumption?

5) What does the industry have to do to continue to increase the consumption of red tart cherries comparable to production?

Upward Trend in Production

The accompanying graph portrays the prices paid growers and the increase in production from 1914 until 1951.

The graph shows there has been a definite relationship of cherry prices not only to production but also to such basic economic factors as war, recession, prosperity, depression and recovery; recession, war again, and currently a new period.

PRODUCTION	Thousand Tons		
	Total	Sweet	Sour
1939	184	88	97
1940	173	68	105
1941	162	80	81
1942	197	91	105
1943	116	75	41
1944	196	83	112
1945	149	102	47
1946	230	113	117
1947	172	79	93
1948	214	80	134
1949	230	128	102
1950	242	82	160
1951*	232	73	159

The accompanying table indicates that the relative price has not followed proportionately *downward* to the vast increase in production shown in the graph. This table indicates that the average adjusted price to the 1935-39 dollar wholesale food level, from 1914 through 1920, was 4.5 cents per pound. The average price for the following 10 years—1921 through 1930—was 4.55 cents per pound. For the years 1931 through 1940, it was 2.58 cents per pound. From 1941 through 1951, it was 5.4 cents per pound; but omitting the years 1945 and 1946, it was 4.9 cents per pound.

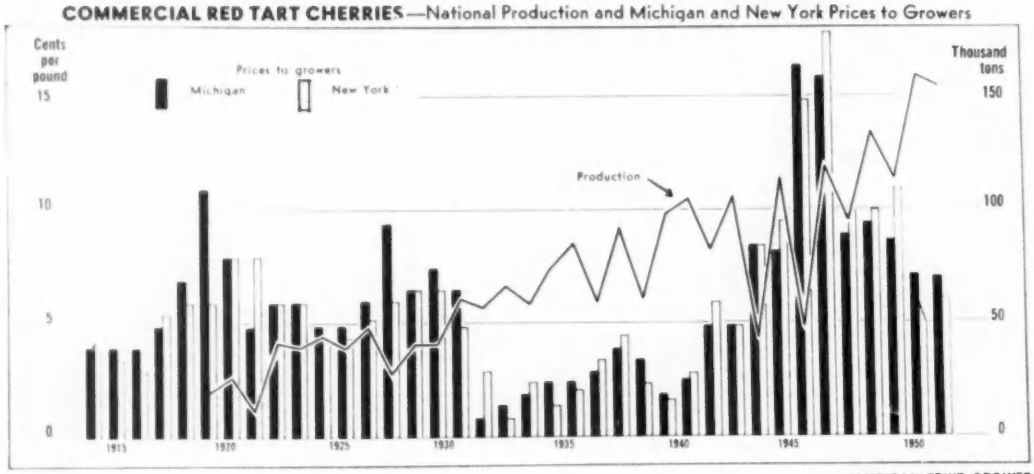
Marketing

Ever-increasing production caused by new trees coming into bearing has

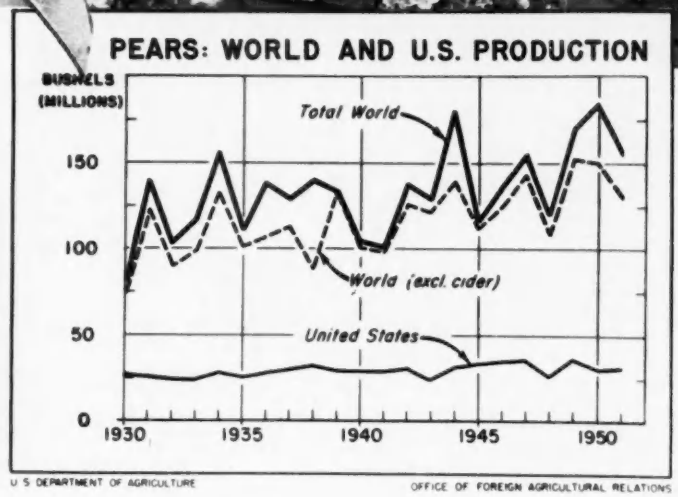
(*Continued on page 38*)

*Preliminary

COMMERCIAL RED TART CHERRIES—National Production and Michigan and New York Prices to Growers



PEARS



California Bartletts

The 1951 California Bartlett crop was the second largest on record. This astonished not only the industry but also the University of California pomologists who had predicted that the exceptionally warm winter would result in nonfunctional buds and thus a short crop. The number of "cold" hours (hours below 45°) during the preceding winter had been the fewest during the past 20 odd years for which records have been kept.

Total production for each of the past four years is reported below. These figures include fruit wasted (approximatly 30,000 tons in 1949), dried, and used on farms in addition to that sold in the regular fresh fruit and processing channels:

TOTAL PRODUCTION

Year	Tons
1948	226,000
1949	344,000
1950	307,000
1951	312,000

Cannery Demand

In 1951 approximately 214,000 tons were sold to processors for canned halves, cocktail, strained foods, and nectar. This was the largest tonnage ever delivered in these channels, exceeding the previous high (established in 1950) of 202,000 tons.

Fresh interstate shipments in 1951 totaled approximately 3,700 cars, which may be compared with 4,001 cars in 1950, 5,514 in 1949, and 1,384 in 1948.

PRODUCTION—ALL PEARS—Million Bushels

1938	32	1945	33
1939	29	1946	34
1940	30	1947	35
1941	29	1948	26
1942	30	1949	36
1943	24	1950	31
1944	31	1951*	32

Satisfactory Prices

Prices received in 1951 were generally satisfactory although somewhat below 1950 so far as fresh interstate shipments were concerned. The all-auction average in 1951 was $4.69 per standard box as compared with $4.92 in 1950. Prices received for No. 1 cannery pears (prorate grade) ranged from $90 to $117.50 per ton as compared with a 1950 range of $65 to $90.

PRICES—FRESH

Season Average Price Per Bushel Received by Grower

	1950	1951*		1950	1951*
Mass.	2.40	2.90	Ala.	1.70	1.70
Conn.	2.80	3.00	Miss.	1.70	1.90
N. Y.	1.95	2.00	Ark.	1.60	1.60
Pa.	1.95	1.80	La.	1.30	1.55
Ohio	2.00	1.85	Okla.	1.15	1.25
Ind.	1.15	1.10	Tex.	1.55	1.50
Ill.	1.15	1.05	Idaho	3.50	2.40
Mich.	1.80	1.95	Colo.	2.55	2.35
Mo.	1.45	1.50	Utah	3.60	2.15
Kans.	1.35	1.30	Wash., All	2.63	2.27
Va.	1.75	1.60	Bartlett	2.76	2.40
W. Va.	2.00	1.75	Other	2.35	1.90
N. C.	2.00	1.80	Ore., All	2.76	3.16
S. C.	1.75	1.40	Bartlett	2.68	2.65
Ga.	1.10	1.20	Other	2.80	3.56
Fla.	1.10	1.15	Calif., All	1.80	2.30
Ky.	1.85	1.85	Bartlett	1.82	2.37
Tenn.	1.90	1.95	Other	1.62	1.80

Marketing Orders

California Bartletts are the subject of four marketing orders—three regulatory and one promotional. Concerning the regulatory orders, interstate fresh shipments are regulated by a federal agreement and order program; intrastate fresh shipments are controlled under a state marketing order; and the quality of cannery deliveries is prescribed under a state marketing order.—*Galen Geller, California Tree Fruit Agreement.*

CITRUS

Texas Rebuilding

While citrus growers in other production areas ponder over the Texas situation, most Lower Rio Grande Valley orchardists are making preparations to rebuild or reset. Freezes of the past three winters reduced the citrus tree population along the Rio Grande from about 14 million trees to a bare 4 million. Most of the one million old trees and all of the remaining young trees are bare of fruit this year.

PRODUCTION

Total Citrus Production in U. S. and Value, 1937-38 to 1951-52

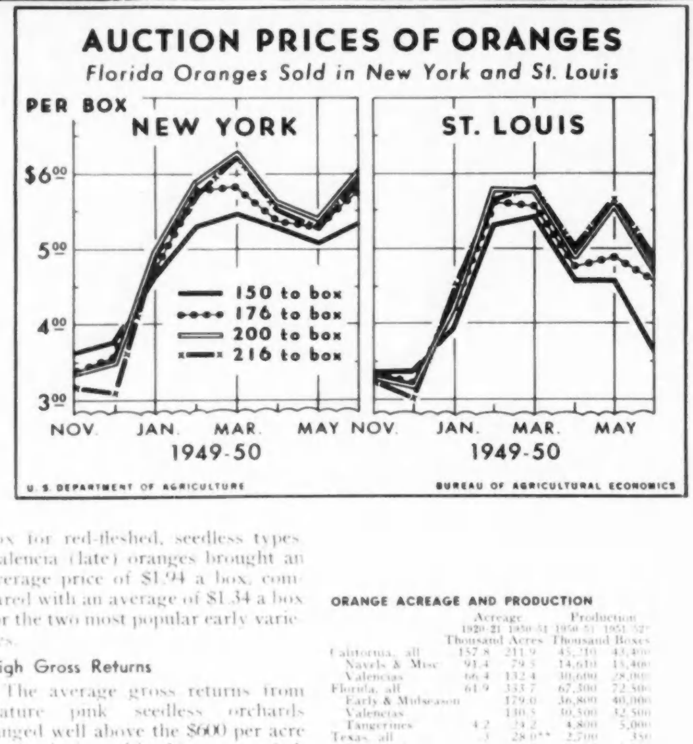
Year	Production Thousand Boxes	Value Thousand Dollars
1937-38	114,762	96,047
1938-39	133,426	87,192
1939-40	121,012	105,504
1940-41	145,209	118,741
1941-42	137,294	180,190
1942-43	154,885	314,772
1943-44	171,987	402,760
1944-45	178,190	423,800
1945-46	187,410	418,559
1946-47	192,030	264,884
1947-48	187,180	207,415
1948-49	159,800	258,896
1949-50	150,588	344,507
1950-51	181,870	326,308
1951-52*	176,175	252,816

During the period from 1939 through 1949, grapefruit production averaged almost 18 million boxes per year. Orange production during this period averaged about 34½ million boxes per year, according to figures recently compiled by Dr. D. C. Alderman, horticulturist with the Valley Experiment Station.

High Per Acre Production

Dr. Alderman's studies show that acre yields for mature grapefruit trees during this 10-year period averaged well above 300 boxes per acre, while the figure for orange varieties was just about 300 boxes per acre. Average prices for all grades ranged from 78 cents a box for seedy types of grapefruit to a high of $2.16 a box for red-fleshed, seedless types. Valencia (late) oranges brought an average price of $1.94 a box, compared with an average of $1.34 a box for the two most popular early varieties.

*Preliminary.



High Gross Returns

The average gross returns from mature pink seedless orchards ranged well above the $600 per acre mark during this 10-year period, while late and early oranges made gross returns of $582 and $430 per acre, respectively.

Low Production Costs

Production costs were not excessive in the Lower Rio Grande Valley during the period covered by these studies. Annual cash costs in an average grove probably ranged around $100 per acre for mature or-

ORANGE ACREAGE AND PRODUCTION

	Acreage 1920-21	Acreage 1950-51	Production 1950-51	Production 1951-52*
	Thousand Acres		Thousand Boxes	
California, all	157.8	211.9	45,210	43,400
Navels & Misc.	91.4	79.5	14,610	15,400
Valencias	66.4	132.4	30,600	28,000
Florida, all	61.9	333.7	67,300	72,500
Early & Midseason		179.0	36,800	40,000
Valencias		130.5	30,500	32,500
Tangerines	4.2	24.2	4,800	5,000
Texas, all	.3	28.0**	2,700	350
Arizona, all	.6	8.3	1,400	1,025
Louisiana, all	1.1	4.5	300	50

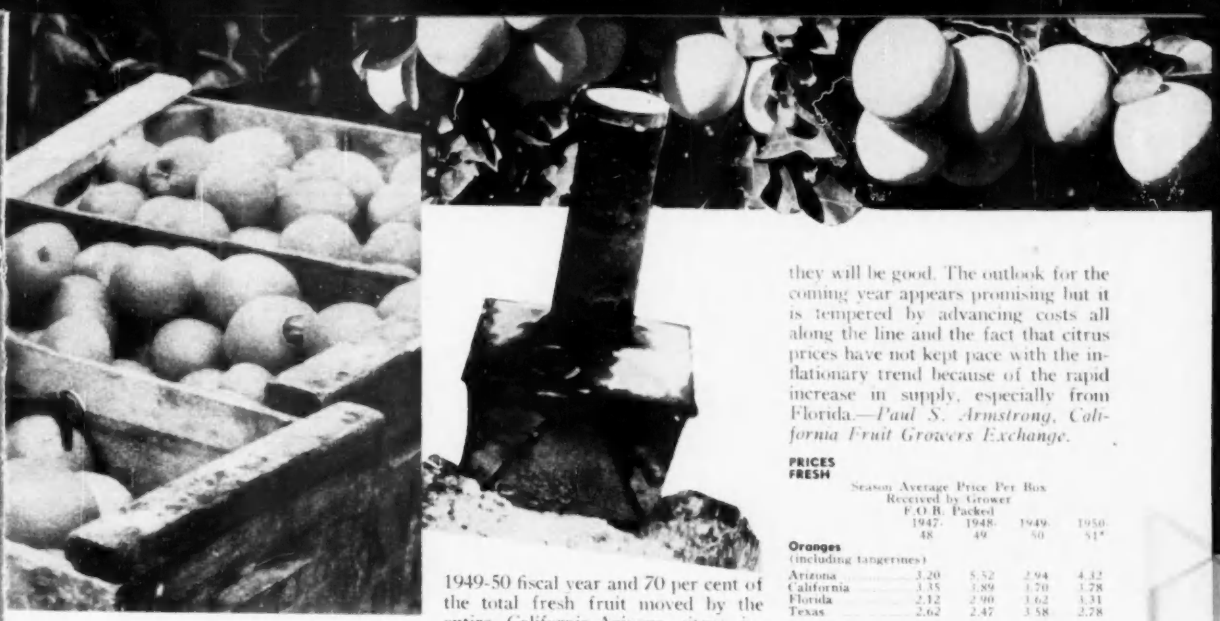
GRAPEFRUIT ACREAGE AND PRODUCTION

	Acreage 1920-21	Acreage 1950-51	Production 1950-51	Production 1951-52*
	Thousand Acres		Thousand Boxes	
Florida	31.4	100.0	33,200	35,000
Texas	.3	56.0**	7,500	250
Arizona	.5	9.4	3,150	2,640
California	2.9	10.0	2,730	

LEMON ACREAGE AND PRODUCTION

	Acreage 1920-21	Acreage 1950-51	Production 1950-51	Production 1951-52*
	Thousand Acres		Thousand Boxes	
California	38.3	54.4	13,500	12,900

**No allowance made for Texas trees removed following freeze in January, 1949.



chards. This difference between gross returns from good orchards and total cash costs is the incentive which will encourage citrus orchardists and prospective orchardists to try their luck in the citrus game.

Irrigation, weed control, and pruning are the principal cost items in the average mature citrus orchard. The average grower did not spend very much money for fertilizers, pest control, or disease control.

Cotton Competition

Cotton competes with citrus for the use of the fertile irrigated land of the Lower Rio Grande Valley. Since gross returns from good fields of irrigated cotton may compare favorably with those from mature citrus orchards, some orchard land will be used for cotton production.

Most of the 200,000 acres of irrigated Valley land that was originally set to citrus trees will eventually be replanted. Those who develop new orchards will profit from information relating to Valley orcharding that has accumulated during the past 50 years. The industry should be rebuilt on a sounder foundation than the one that was started soon after the turn of the century.—*W. H. Friend.*

Profitable Season for California-Arizona

The sales value of all fresh fruit and products sold by the California Fruit Growers Exchange during the fiscal year ended October 31, 1951, was slightly over $150 million f.o.b. shipping point, an increase of about $7 million over last season.

Fresh fruit shipments of the Exchange were more than 66,700 cars, an increase of 4,700 cars over the 1949-50 fiscal year and 70 per cent of the total fresh fruit moved by the entire California-Arizona citrus industry. In addition, the 32,900 cars of Exchange fruit used in the manufacture of citrus products set an all-time high for the organization.

Citrus Products Are "Sunkist"

The past year saw the famous Sunkist trademark used for the first time in history on canned and frozen citrus juices produced in the two processing plants affiliated with the Exchange. By this stroke, consumers were able to choose fresh fruit, canned juice or frozen concentrate—all bearing the Sunkist label.

Sunkist frozen orange concentrate moved into one of the most competitive fields of any food product. There are approximately 40 individual labels representing as many manufacturers of frozen orange concentrate to be found in retail stores throughout the nation.

If Sunkist is to find and maintain a place in the frozen food department of major retail outlets, continued intensive salesmanship, promotion and advertising must be maintained.

Big Increase in Exports

One of the brightest spots in the past season was the near record-breaking export volume which saw almost 2½ million boxes of oranges, lemons, and grapefruit moving overseas and returning $8 million f.o.b. to Exchange growers. This was an increase of about 1 million boxes in volume and $2½ million over the exports of the 1949-50 fiscal year, and was made in the face of continued foreign government dollar-exchange restrictions in many markets of the world.

Forecast

Early reports on the 1951-52 California-Arizona citrus crops indicate they will be good. The outlook for the coming year appears promising but it is tempered by advancing costs all along the line and the fact that citrus prices have not kept pace with the inflationary trend because of the rapid increase in supply, especially from Florida.—*Paul S. Armstrong, California Fruit Growers Exchange.*

PRICES
FRESH

Season Average Price Per Box Received by Grower F.O.B. Packed

	1947-48	1948-49	1949-50	1950-51*
Oranges (including tangerines)				
Arizona	3.20	5.52	2.94	4.32
California	3.35	3.89	3.70	3.78
Florida	2.12	2.90	3.62	3.31
Texas	2.62	2.47	3.58	2.78
Grapefruit				
Arizona	1.88	2.47	2.35	2.03
California	2.55	3.38	3.27	2.63
Florida	1.84	2.35	3.43	2.68
Texas	1.56	1.69	3.15	2.77
Lemons				
California	5.52	7.11	6.00	5.80

PROCESSED

Season Average Price Per Box Received by Grower F.H.D.

Oranges (including tangerines)				
Arizona	.55	.53	.67	
California	.52	.76	1.02	.80
Florida	.80	1.52	2.31	1.83
Texas	.61	.63	1.43	.72
Grapefruit				
Arizona	.16	.19	.35	.46
California	.07	.01	.33	.15
Florida	.34	.63	1.85	.91
Texas	.26	.15	1.73	.64
Lemons				
California	.35	.79	2.33	1.04

In addition to the cash payment at time of delivery, the grower receives a participation certificate allowing him to share, on the basis of the soluble solids in his fruit, in any profits on a 50-50 basis.

Florida Citrus Mutual, a super-cooperative with some 7,000 growers as members and with handler contracts with shippers and processors representing about 88 per cent of the crop as of December 1, 1951, is now in its third season of operation and still undergoing growing pains.

No important factor in the Florida citrus deal at this time wants to predict what the next year will bring—so much is dependent on the international situation, on possible disasters such as freezes or hurricanes—but this much is more than certain:

Never in the history of the sprawling Florida citrus industry, with an estimated 15,000 growers, some 70 juice processors, and upwards of 300 fresh fruit packing houses, has there been such a healthy spirit and co-operation—and many factors give Mutual full credit.—*Jack Gurnett*

(*Continued on page 48*)

GRAPES

Value of California Crop

One characteristic of the California grape grower's income is that it fluctuates violently, ranging from a gross value of $80 million to $267 million. The 1951 crop of nearly 3 million tons will be worth much less than that of 1950.

Each year the big question is which way will the majority of the predominant variety of Thompson Seedless grapes go. This remarkable grape can be used for wine, table, or raisins. While the fresh shipping volume remains fairly constant, the raisin lay and the wine crush always are swaying in violent competition.

PRODUCTION

	California	Other States
	Thousand tons	
1937	2,454	272
1938	2,531	140
1939	2,228	221
1940	2,250	216
1941	2,342	178
1942	2,360	236
1943	2,789	176
1944	2,514	198
1945	2,663	118
1946	2,958	202
1947	2,836	200
1948	2,891	187
1949	2,473	177
1950	2,413	274
1951*	3,025	174

PRICES Processed.

Season Average Price Per Ton Received by Grower

	1948	1949	1950*
New York Concords	100.00	110.00	100.00
New Jersey All	75.00	82.00	83.00
Pennsylvania Concords	100.00	100.00	103.00
Michigan All	99.00	106.00	110.00
Washington All	40.70	46.00	85.20
California			
Canned	48.50	38.70	65.00
Dried**	134.00	143.00	262.00
Crushed	30.30	26.80	61.00
All Fresh	52.10	39.40	75.20
Total	35.60	32.50	68.10

**Dried basis (4 tons fresh to 1 ton dried)

*Preliminary

Foreign Raisin Market Weak

The foreign raisin market was weak so the raisin trade was not too encouraged. The USDA tried to loosen this channel by offering an export subsidy of $55 a ton on raisins. Another disappointment was the failure of the government to provide Mexican Nationals in time to supply the labor to get raisins on trays.

Some of the experts estimated that at least 280,000 tons of raisins should be made but due to the lack of labor some 150,000 to 200,000 green tons of raisin-type grapes had to be diverted to wineries at prices which brought less than cost of production.

Low Winery and Raisin Prices

The wineries had been counted on to be a strong factor. Growers were encouraged by the reports that winery inventories were low. However, retail sales of wine have been disappointing, with the price sliding off since early spring and finally dropping down to 50 cents a gallon f.o.b. in tank car lots, or a fall of 35 cents a gallon since last winter.

With an eye on the huge crop and the difficulties of the raisin people, the wineries sat back and finally opened the market with offers of $35 a ton whereas prices in 1950 had averaged $70 a ton.

Later the wineries dropped the price to $25 a ton. A 1950 cost of production study made on wine grapes in San Joaquin County, center of the great Central Valley, showed that total cost of producing wine grapes was $197 an acre or an average of $31 a ton. Costs are up 10 per cent in California over 1950, making winery

prices disastrously low.

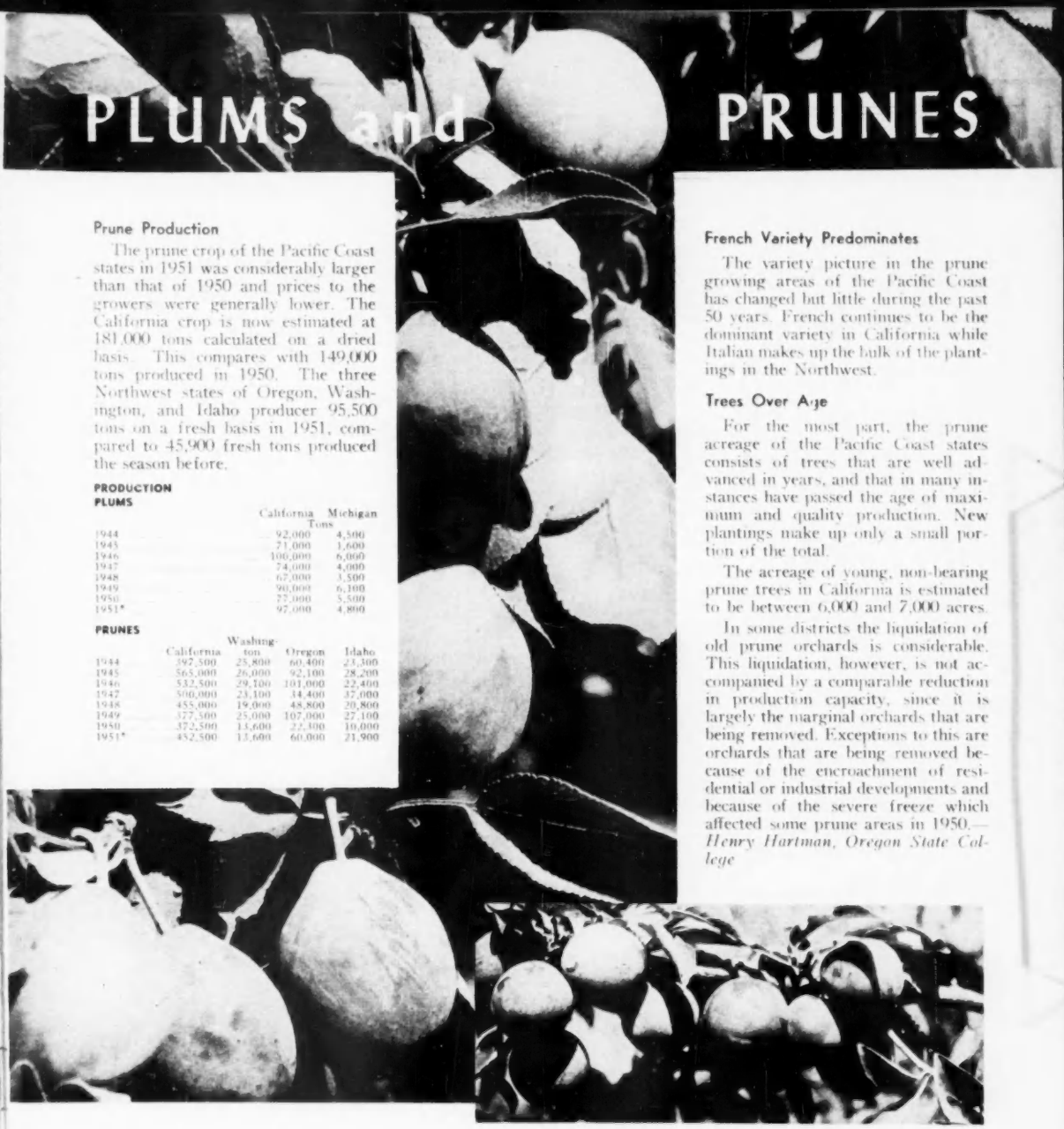
The raisin market opened at $160 a ton or about $100 a ton lower than last year. In Fresno County, one of the most important grape counties in the southern end of the Central Valley, cost of production for Thompsons averaged $201 per acre for the past three years. The yield averaged about 1.78 tons of raisins to the acre or a cost per ton of about $113, not taking into account an increase in costs of 10 per cent in 1951 over 1950.

Fresh Shipments Increased

A total of 10,337 cars of fresh grapes had been shipped out of state

(*Continued on page* 45)

PLUMS and PRUNES



Prune Production

The prune crop of the Pacific Coast states in 1951 was considerably larger than that of 1950 and prices to the growers were generally lower. The California crop is now estimated at 181,000 tons calculated on a dried basis. This compares with 149,000 tons produced in 1950. The three Northwest states of Oregon, Washington, and Idaho producer 95,500 tons on a fresh basis in 1951, compared to 45,900 fresh tons produced the season before.

PRODUCTION
PLUMS

	California	Michigan
	Tons	
1944	92,000	4,500
1945	71,000	3,600
1946	106,000	6,000
1947	74,000	4,000
1948	67,000	3,500
1949	90,000	6,300
1950	77,000	5,500
1951*	97,000	4,800

PRUNES

	California	Washington	Oregon	Idaho
1944	397,500	25,800	60,400	23,300
1945	565,000	26,000	92,100	28,200
1946	532,500	29,100	101,000	22,400
1947	500,000	23,100	34,400	37,000
1948	455,000	19,000	48,800	20,800
1949	577,500	25,000	107,000	27,100
1950	372,500	13,600	22,300	10,000
1951*	452,500	13,600	60,000	21,900

French Variety Predominates

The variety picture in the prune growing areas of the Pacific Coast has changed but little during the past 50 years. French continues to be the dominant variety in California while Italian makes up the bulk of the plantings in the Northwest.

Trees Over Age

For the most part, the prune acreage of the Pacific Coast states consists of trees that are well advanced in years, and that in many instances have passed the age of maximum and quality production. New plantings make up only a small portion of the total.

The acreage of young, non-bearing prune trees in California is estimated to be between 6,000 and 7,000 acres.

In some districts the liquidation of old prune orchards is considerable. This liquidation, however, is not accompanied by a comparable reduction in production capacity, since it is largely the marginal orchards that are being removed. Exceptions to this are orchards that are being removed because of the encroachment of residential or industrial developments and because of the severe freeze which affected some prune areas in 1950.—*Henry Hartman, Oregon State College*

Prices

It now appears that California growers will receive about $195 per ton for the dried product as against a price of $245 per ton last year. Italian prunes designated for fresh shipment from the Northwest states averaged approximately $100 per fresh ton for the No. 1 grade. The same variety sold to processors for canning averaged about $55 per ton for all grades as against an average price of $98.50 paid to growers in 1950.

Utilization

While processing by drying continues to be the chief outlet for the prune crop in California, the Northwest is now resorting largely to other means. This is clearly shown by the figures for Oregon. In 1951, Oregon produced approximately 60,000 tons of prunes and of this production, 28,000 were canned, 15,800 tons were shipped fresh, 14,000 tons were dried, and 2,200 tons were processed in frozen form.

Plum Shipments

The records of the California Tree Fruit Agreement indicate that 5,104 cars of California plums were sold in interstate commerce in 1951, this being the second largest interstate movement on record.

Offerings in local markets also were heavy, although final figures are not yet available. It is known, however, that 736 cars of plums were unloaded at Los Angeles through

(Continued on page 42)

NUTS

Quality of Western Walnuts Above Average

The 1951 walnut crop of the Pacific Coast is expected to be the second largest in history—a total of 75,000 tons, orchard-run, compared with 64,000 tons last year and a 5-year average of 72,000 tons. Commercial production is confined to California, Oregon, and Washington, with the first-named accounting for 90 per cent of the total. Approximately 80 per cent of the tonnage is handled by growers' co-operatives.

Returns to growers will be materially improved over last year's, as a result of improved quality and higher prices which should ultimately average $60 to $80 per ton more than for the 1950 crop. Likewise, yields are heavier, averaging 1,200 pounds per acre from bearing and partial-bearing orchards, or over 15 per cent higher than in 1950.

Production costs are reported by many growers to have increased by at least 10 per cent, and despite higher returns, it is a good guess that the wind-up will witness an average return of only 50 to 60 per cent of parity.

Mechanization continues, with increasing reliance upon mechanical, tractor powered tree shakers of which there must be nearly a thousand in use; also upon mechanical pick-ups of which there are approximately 100 in the industry.—*W. C. Tesche, California Walnut Growers Association*

Marketing Agreement for California Almonds

The 1951 California almond crop is currently estimated at 42,700 tons, unshelled—a production 600 tons less than that of the all-time record crop of 43,300 tons produced in 1949, but 13 per cent above the 37,700 tons produced in 1950.

The California almond industry is this year operating under a federal marketing agreement and order. Of the 1951 crop 25 per cent has been set aside as surplus for disposal into by-product channels or through export. The surplus can be declared salable any time up to May 15, 1952, but only in the event the demand for almonds should exceed estimates, or should supplies be less than anticipated.

Prices for the 1951 almond crop were opened by the California Almond Growers Exchange on levels approximately the same as those which prevailed for the 1950 crop. The demand for the 1951 crop has been good, except in those cases where the trade had stockpiles available from the 1950 season when, in addition to the large domestic crop, there were imports of over 15 million pounds of shelled almonds.

The outlook for the 1951 season is primarily dependent upon the attitude which the United States government displays with respect to an application now pending before the Tariff Commission for the establishment of quotas on the importation of almonds; furthermore, the amount of financial assistance the USDA will give with respect to surplus almonds diverted into by-product channels, or export.

Increased production applicable to the 1951 crop has been largely offset by higher operating costs, therefore growers must receive a return comparable to that on the 1950 crop if a successful season is to be encountered.—*W. Glenn Stalker, California Almond Growers Exchange*

PRODUCTION by kinds—Tons

	Walnuts	Pecans	Almonds	Filberts
1937	64,400	53,595	20,000	2,570
1938	55,300	37,162	15,000	2,440
1939	62,500	48,530	21,600	3,890
1940	80,800	61,442	12,000	3,210
1941	70,000	60,890	6,000	5,750
1942	61,200	38,687	23,800	4,270
1943	63,800	66,521	17,500	7,030
1944	71,800	71,610	24,000	6,520
1945	70,900	70,588	27,200	5,320
1946	71,900	48,353	32,800	8,450
1947	64,600	59,320	29,200	8,800
1948	71,100	88,814	34,000	6,440
1949	88,100	64,087	43,300	11,140
1950	64,300	62,811	37,700	6,680
1951*	75,800	73,952	42,700	7,390

No Filbert Carryover

The USDA estimate has placed the 1951 yield of filberts in Oregon and Washington at 7,390 tons as compared with 6,680 tons in 1950. The yield in both years is substantially below the 11,140-ton crop in 1949.

(*Continued on page 58*)

*Preliminary

BERRIES and BRAMBLES

Decrease in Strawberry Acreage

All evidence points toward an appreciable reduction in strawberry acreage and production in 1952. Reports from many important producing areas indicate that the acreage will be down from 5 per cent to as much as 50 per cent in some sections. Nationally, the decrease may average 7 to 8 per cent lower than in 1951. To cite a few specific examples, it appears that the Florida acreage may be only slightly below 1951, while the Arkansas and Pennsylvania plantings will be down 10 to 11 per cent, and in Louisiana the most recent estimate indicates a drop of over 50 per cent.

Many factors have contributed to this reduction in the acreage planted to strawberries for the 1952 crop. Unstable economic conditions in general have had a depressing effect. Present and anticipated future shortages of labor undoubtedly have had a pronounced influence on the plantings in many localities.

The rather severe droughts which occurred in late summer of 1951 in many sections of the East have caused additional damage to many plantings and will cause yields to be low during the coming season.

The downward trend in acreage should result in only moderate supplies of berries in 1952 and a strong market. Prices should hold relatively firm for good fruit. This will be an improvement over the situation during the 1951 season when the market slumped on several occasions and did not give the hoped-for return to growers.

BRAMBLES—Acreage, principal varieties, average yields, harvesting costs, and processing and fresh prices, for principal producing states, for 1951.
Yield and price figures are on pound basis (1½ lbs. to 1 qt.).

	Black Raspberries	Red Raspberries	Blackberries
CALIFORNIA			
Total acreage			17,000
Principal variety			Boysen
Average yield per acre			15,000
Market price, processing			.13
MICHIGAN			
Total acreage	4,500	4,500	1,500
Principal varieties	Cumberland New Logan	Latham	Lucretia
Total production	5,250,000	4,800,000	2,250,000
Picking cost, processing	.07-.10	.08	.05
Picking cost, fresh	.05-.07	.07	
Fresh farm price	.22	.22	.15
Market price, processing	.19	.18-.20	.14-.17
NEW YORK			
Average yield per acre	1,500		
Picking cost	.05-.07		
Market price, processing	.15		
OREGON			
Total bramble acreage: 11,000			
Total bramble yield: 33,500,000			
Market price, processing	.14-.15		.11-.13
Fresh farm price		.17	
TEXAS			
Total acreage			6,000
Principal variety			Lawton
Average yield per acre			5,063
Market price, processing			.12-.15
WASHINGTON			
Total acreage		3,200	1,600
Principal variety		Washington	Evergreen
Average yield per acre		5,000	8,000
Picking cost		.06	.045
Market price, processing		.16	.15

Improving the Yield

Although it is now too late to change the acreage, there is an opportunity for the alert grower to give more attention to the mulching of his new planting and give his second or

(*Continued on page 60*)

FRUIT QUEENS OF 1951

Queen of North Carolina's apple Festival Kathryn Hyatt.

Lily Jo Hammans, Queen of 32nd Washington Apple Blossom Festival.

Shenandoah Apple Blossom Queen Guri Lie, daughter of UN Sec'y-General Trygve Lie.

Nauvoo, Ill., Grape Festival Queen Martha Sue Yager.

National Cherry Festival Queen Mary Lonn Trapp.

California Orange Show Queen Marcia Barnhart.

Kansas Apple Blossom Queen Wilma Ruhnke.

Dixie Sarchet, National "Cranboree" Queen, receiving crown from 1950 Queen.

Florida Citrus Exposition Queen Carolyn Stroup.

Betty Barnhart, Hopkins, Minn., Raspberry Queen.

Maine's Apple Harvest Queen Ann Bachelder.

Lebanon, Oregon, Strawberry Festival Queen Deloris Welch.

Virginia's National Apple Week Queen Agnes Patton Alexander.

West Tennessee Strawberry Queen Margie Newman.

Edna Hunnicutt, Queen Elberta X of Arkansas.

Peggy Pollock, Wisconsin Cherry Blossom Queen.

West Virginia's National Apple Week Queen Maxine Twigg.

1951'S NEW FRUIT VARIETIES

By REID M. BROOKS and H. P. OLMO
University of California

THE list below, abstracted from the Register of New Fruit and Nut Varieties, includes important varieties introduced during the past year as well as some introduced in 1950 and not included in a similar article published in the January, 1951 issue of AMERICAN FRUIT GROWER. The Register is compiled by the University of California at Davis, with the co-operation of 70 leading horticulturists in the United States and Canada, and catalogs all new varieties of fruits and nuts that have appeared since 1920. Six lists have been published in the *Proceedings of the American Society for Horticultural Science*. Supplementary lists were published in AMERICAN FRUIT GROWER in January, 1950, and January, 1951.

A unique method of collecting the information is used in that postcard questionnaires are sent to the originators themselves, asking for only a limited amount of data, including the place of origin, the name of the originator, patent number, parentage of the variety, and a few descriptive notes that establish the variety as distinctive from others. At the present time there are a considerable number of new varieties being released that should be called to the attention of the public, to encourage wider testing and more rapid evaluation. Annual lists are now being published so that most varieties are reported as soon as they are named and released.

APPLE

Lakeland *(Minnesota 978)*.—Originated in Excelsior, Minn., by the University of Minnesota Fruit Breeding Farm. Introduced commercially in 1950. Open pollinated seedling of Malinda; selected in 1927. Fruit: all over red color; Wealthy type; very good adherence to tree at harvesttime. Tree: annual bearer; non-clustering fruit habit.

CHERRY

Northstar *(Minnesota 58)*.—Originated in Excelsior, Minn., by the University of Minnesota Fruit Breeding Farm. Introduced commercially in 1950. English Morello x Serbian Pie 1 (a selection from seed of sour cherry obtained in Serbia in 1918); cross made in 1933; selected in 1942. Fruit: Morello type. Tree: small; very hardy in wood and fruit bud; resistant to leaf spot.

FILBERT

Potomac *(USDA 2336)*.—Originated in Beltsville, Md., by the USDA Bureau of Plant Industry (J. W. McKay, H. L. Crane, and C. A. Reed). Introduced commercially in February, 1951. Rush x Du Chilly; selected in the fall of 1943. Nut: averages 185 to 195 per pound and yields 50 per cent kernels; most nearly resembles Barcelona. Tree: vigorous; hardy; productive; suited to areas in which the varieties of the European species cannot be grown because of their lack of hardiness.

Reed *(USDA 1667)*.—Originated in Beltsville, Md., by the USDA Bureau of Plant Industry (J. W. McKay, H. L. Crane, and C. A. Reed). Introduced commercially in February, 1951. Rush x Bolwyller; selected in the fall of 1943. Nut: averages 180 to 190 per pound and yields 48 per cent kernels; most nearly resembles Red Aveline. Tree: vigorous; productive; suited to areas in which the varieties of the European species cannot be successfully grown because of their lack of hardiness.

GRAPE

Blackrose.—Originated in Fresno, Calif., by the U. S. Horticultural Field Station (Elmer Snyder and Frank N. Harmon). Introduced commercially May 1, 1951. (Damas Rose x Black Monukka) x Ribier (Alphonse Lavallee); cross made in 1941; first fruited in 1944; selected in 1944. Fruit: cluster size large; berry size large; skin color jet black; recommended for trial as an early-midseason table and shipping grape for vinifera table grape areas. Vine: vigorous; very productive.

Calmeria.—Originated in Fresno, Calif., by the USDA (Elmer Snyder and F. N. Harmon). Introduced commercially in January, 1950. Open pollinated seedling of Ohanez (Almeria); selected in 1941. Fruit: berry size large; stores well, quality good; most nearly resembles an elongated Ohanez. Vine: good producer. Flowers: upright stamens.

Cook.—Originated in Shrewsbury, Mass., by S. L. Davenport. Introduced commercially in 1951. (King x Delaware) x Niagara; selected about 1915. Fruit: skin color blue; attractive; quality good; does not shatter; keeps well; does not crack; most nearly resembles Worden. Vine: appears productive.

NECTARINE

Late Le Grand.—Originated in Merced, Calif., by F. W. Anderson. Introduced commercially in 1951. Patent 1035; September 11, 1951; assigned to Reedley Nurseries, Reedley, Calif. Open pollinated seedling of Le Grand; selected in 1950. Fruit: very similar to Le Grand but ripens about two weeks later. Tree: more vigorous and more productive than Le Grand.

Silver Lode.—Originated in Ontario, Calif., by Armstrong Nurseries, Inc. (Herbert C. Swim). Introduced commercially in January, 1951. Patent 1023; July 24, 1951; assigned to Armstrong Nurseries, Inc., Ontario, Calif. (Gold Mine x Rio Oso Gem peach) x (Gold Mine x July Elberta peach); selected in 1944. Fruit: flesh white, sweet, texture good; skin red; freestone. Tree: sufficiently low chilling requirement to be well suited to growing in southern California.

Sunbrite (name subject to change).—Originated in Merced, Calif., by F. W. Anderson. Introduced commercially in 1950. Patent 974; August 22, 1950; assigned to Reedley Nursery, Reedley, Calif. F_2 of (Kim x July Elberta); selected in 1947. Fruit: flesh yellow, firm; freestone; large, about 2½ inches in diameter; ripens between John Rivers and Gower, about July 5.

ORANGE

Torocco.—Originated in Riverside, Calif., by the University of California Citrus Experiment Station (L. D. Batchelor). Introduced commercially in 1951. Budwood of *Citrus sinensis* Osbeck sent by Howard S. Fawcett from the orchard of Brogna Guiseppe of Lentini, Sicily, in 1930. Fruit: approximately the size of Valencia; slight red blush to skin; flesh red; juice deep red; flavor good, with slight grape flavor; ripens in April.

PEACH

Altair.—Originated in Ontario, Calif., by Armstrong Nurseries, Inc. (Herbert C. Swim). Introduced commercially in January, 1951. Patent 1022; July 24, 1951; assigned to Armstrong Nurseries, Inc., Ontario, Calif. (Swatow P. I. 41395 x Rio Oso Gem) x [Babcock x (Babcock x Swatow P. I. 41395)]; selected in April, 1947. A fruiting-flowering variety. Fruit: flesh white; freestone; quality high for this type; uniform in form but slightly unsymmetrical; skin color yellow; ripens during the second week in August at Ontario, Calif.; picking period extends for 10 days. Flower: ornamental; double; size large, with as many as 14 petals per flower; closely arranged on the stem. Tree: winter rest requirement approximately the same as that of Babcock.

Blazing Gold *(S-47-3)*.—Originated in Merced, Calif., by T. B. Stribling Jr. Introduced commercially in January, 1951. Open pollinated seedling of Kim Elberta; selected in 1947. Fruit: flesh yellow; skin blushed with red; freestone; very early, ripening with Florence and 3 to 5 days ahead of Gold Dust; flavor slightly acid; most nearly resembles Gold Dust.

Daily News One Star.—Originated in La Canada, Calif., by Descanso Distributors, Inc. (W. E. Lammerts). Introduced commercially in January, 1951. F_1 (Babcock x Quetta nectarine) x F_1 [(Chinese Dwarf Mandarin x Rio Oso Gem) x (Babcock x Mayflower)]; selected in June, 1948. Fruit: 2½ inch size; semiclingstone; flesh white; quality high; as early as Robin, which it most nearly resembles. Tree: vigorous; short chilling requirement. Flowers: large and very abundant.

Daily News Two Star.—Originated in La Canada, Calif., by Descanso Distributors, Inc. (W. E. Lammerts). Introduced commercially in January, 1951. St. Helena seedling x F_1 [(Chinese Dwarf Mandarin x Rio Oso Gem) x (Babcock x Mayflower)]; selected in June, 1948. Fruit: 2½ inch size; semiclingstone; flesh yellow; quality high; ripens middle of June; most nearly resembles Meadowlark. Tree: vigorous; short chilling requirement. Flower: large; very abundant.

Daily News Three Star.—Originated in La Canada, Calif., by Descanso Distrib-

(*Continued on page 56*)

1951—SPRINGBOARD TO MARKETING PROGRESS

By DON FRANCISCO

IN terms of consumer buying power the year 1951 presented a challenging opportunity to the American fruit grower. Cold, hard figures prove what economic and social trends have been predicting for the last ten years. Enough food industries have increased their share in the loads piled into super market carriages to add the further proof that higher grosses were there for those who knew how to go after them.

Economists estimate that "real" purchasing power (money which is left after people have paid their taxes and made allowances for the decreased value of the dollar) was $123 billion in 1951, an all-time high, five per cent above the previous year and 62 per cent over 1940. This gave two-thirds of the families annual incomes of *more* than $2,000 last year; whereas two-thirds had *less* than $2,000 ten years ago. Spreading added purchasing power over millions of families who have moved into higher income brackets means that market baskets are fuller and are filled with more varied merchandise.

Of course it is true that the capacity of the human stomach remains the same regardless of the size of the pocketbook. It is also true that people who work up to higher income brackets and move to the other side of the tracks don't automatically take on the living standards of their new neighbors. But we mustn't forget how many families never before had quite enough to eat, particularly of the "protective" foods, because they never before had quite enough money to buy them. These people are very apt to spend their new gains, even as you and I, according to what they read and hear and how their friends and neighbors do. Figures again are our proof. A prewar study of fruit juice consumption, for example, showed these variations by income groups:

Annual Consumption of Fruit Juices

Family Income Group	Per Capita Consumption Pounds
Under $500	9
$500 to $999	1.6
$1000 to $1449	3.9
$1500 to $1999	5.9
$2000 to $2999	14.1
$3000 to $4999	16.5
$5000 and over	28.9

Similar variations occur with other foods, including such staples as milk.

Food is so basic that for good or bad it inevitably becomes enmeshed in trends. It has been affected by the way population has moved from rural to urban areas, by the tendency to live in smaller homes and apartments, by the lack of servants even in upper level homes, and by the number of married women who are working outside the home. Thus with cupboard space at a premium there is more hand-to-mouth buying.

When there is less home baking and more dependence on quick mixes and "brown-and-serve" rolls, the grocer sells less flour. As soon as convenience and speed-of-preparation become the highly sought-after characteristics of every food, the importance of the tin can and glass jar is increased. Anyone doubting this can ponder on the $60 million industry that bloomed in a short five years once a way was found to preserve the natural flavor and healthfulness of orange juice by concentrating, quick-freezing, and canning.

More people are buying in self-service stores and men are becoming

(*Continued on page 50*)

A graduate of Michigan State College Don Francisco was formerly advertising manager of the California Fruit Growers Exchange. He has specialized in advertising and promotion of many different fruits and is now vice-president of J. Walter Thompson advertising agency. Probably more than any other man, he is qualified to speak with authority on advertising and trade promotion as a tool to increase fruit consumption.—Ed.

In 1951, Florida and California growers spent a combined total of six million dollars to get their share of the consumer's food dollar while Washington apple growers spent over half a million dollars.

1950 FRUIT TREE POPULATION

STATE	APPLES		PEACHES		PEARS		CHERRIES		PLUMS & PRUNES		GRAPES		ORANGES*		GRAPEFRUIT	
	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age	Bearing Age	Non-Bearing Age
Maine	449,747	125,444	5,612	4,671	5,877	5,464	2,898	1,950	5,458	4,001	5,211	1,997				
New Hampshire	326,989	51,839	19,802	9,943	7,399	3,735	1,049	828	2,032	944	5,916	2,718				
Vermont	250,467	40,834	1,127	798	2,084	867	2,005	1,323	2,677	1,546	3,813	1,502				
Massachusetts	725,845	123,594	51,883	29,992	33,210	6,739	1,962	1,268	3,377	1,409	36,965	8,500				
Rhode Island	61,022	11,456	18,755	7,264	2,971	766	187	364	344	189	4,111	304				
Connecticut	344,062	86,386	92,771	56,437	37,805	16,230	2,801	1,768	4,105	2,893	29,361	7,114				
New York	4,249,510	718,810	1,013,513	266,794	585,167	108,713	1,006,766	344,194	348,661	109,740	21,530,842	1,566,726				
New Jersey	659,858	203,400	986,150	258,685	24,374	9,080	12,810	6,333	6,028	3,733	365,598	42,989				
Pennsylvania	2,758,194	767,766	1,645,464	566,352	164,225	64,208	419,351	196,155	136,013	53,166	21,783,488	5,586,139				
Ohio	2,173,594	459,845	1,050,483	438,835	164,221	48,683	150,415	62,194	131,801	59,887	4,062,538	286,585				
Indiana	831,806	246,547	438,252	202,681	56,913	19,789	54,374	34,048	42,181	22,371	376,808	59,681				
Illinois	1,265,514	375,169	1,202,601	321,143	161,826	39,688	95,915	50,600	61,809	28,613	465,338	59,619				
Michigan	3,351,384	682,793	2,700,787	903,079	619,546	233,703	2,421,539	1,009,263	264,976	109,091	8,039,865	431,483				
Wisconsin	1,195,310	369,868	1,764	3,733	23,185	13,362	768,513	249,783	83,242	24,910	79,920	32,035				
Minnesota	463,069	196,232			3,560	4,374	22,727	12,944	130,449	36,849	34,007	14,401				
Iowa	512,777	320,629	254,382	86,748	63,924	36,488	90,785	61,131	118,018	42,951	575,184	110,801				
Missouri	821,271	315,386	993,712	372,672	129,550	35,820	88,295	86,435	121,032	24,399	1,072,165	244,260				
North Dakota	15,444	20,284							48,989	27,500						
South Dakota	55,228	38,621							63,222	26,430						
Nebraska	95,664	95,226	112,964	39,256	19,181	12,248	50,025	38,872	33,574	18,339	252,228	35,596				
Kansas	207,398	112,174	282,212	109,090	62,499	18,767	71,409	45,426	32,434	16,011	476,141	52,395				
Delaware	108,902	35,195	105,723	11,747	3,770	1,271	930	890								
Maryland	437,611	205,054	395,687	123,992	20,347	7,507	14,285	6,524	10,615	4,047	32,445	13,334				
Virginia	3,389,842	744,106	1,128,688	358,734	85,553	24,245	94,298	31,941	39,779	18,071	164,835	45,121				
West Virginia	1,913,254	420,923	572,696	192,292	49,816	15,845	154,381	62,772	58,842	20,408	119,543	25,899				
North Carolina	1,651,208	501,249	1,338,803	511,672	87,786	32,600	107,197	35,203	40,176	14,610	496,686	137,724				
South Carolina	189,460	88,503	3,980,806	827,872	30,600	11,927	8,930	7,470	17,745	9,300	156,667	62,836				
Georgia	485,111	222,973	4,181,051	1,138,820	105,926	38,305	16,200	13,642	42,481	16,921	411,954	158,114				
Florida			32,058	22,935	52,263	13,528			15,358	6,894	22,194	12,715	16,683,548	3,378,089	5,132,742	912,990
Kentucky	1,280,584	454,278	517,473	307,284	88,112	33,308	77,392	44,872	69,320	26,475	199,902	57,372				
Tennessee	1,137,564	454,047	688,922	381,351	109,981	42,478	98,046	55,741	69,895	29,941	299,565	109,736				
Alabama	482,395	320,369	933,867	673,034	81,670	47,789	11,197	13,017	49,270	26,915	160,947	81,591				
Mississippi	181,162	168,789	543,923	445,340	77,232	43,371	4,428	5,891	37,895	26,575	35,955	29,183				
Arkansas	613,470	244,398	2,190,421	816,516	86,652	32,722	13,438	13,865	55,993	24,663	2,327,101	238,273				
Louisiana	17,281	24,533	130,370	203,340	58,016	29,452			22,638	17,422	8,786	7,822	326,306	99,702		
Oklahoma	294,873	148,711	693,552	250,063	91,260	31,377	53,565	38,819	80,096	31,159	325,282	86,382				
Texas	123,651	118,291	1,876,531	819,818	224,611	86,395	22,232	17,212	261,035	121,011	259,624	61,214	1,488,493	1,788,847	3,321,525	1,927,663
Montana	104,568	18,212					61,321	25,280	13,575	5,803						
Idaho	268,206	57,395	156,869	59,066	33,191	19,396	83,828	44,644	348,886	77,019	41,000	6,592				
Wyoming	24,642	7,146					3,043	1,955	7,427	2,765						
Colorado	450,744	113,675	970,426	325,327	74,550	20,558	248,827	95,778	56,259	18,364	95,873	11,325				
New Mexico	310,887	150,566	146,682	55,306	16,869	14,538	24,438	10,526	32,356	7,431	147,565	29,231				
Arizona	30,934	7,614	62,158	14,343	4,408	2,009			5,186	2,837	213,308	459,010	595,966	88,256	701,948	11,524
Utah	208,532	82,789	485,119	137,411	121,465	72,885	191,090	76,078	52,336	16,726	121,737	17,497				
Nevada					2,228	827	959	540	2,328	964	9,086	11,899				
Washington	2,691,784	697,470	932,043	429,227	1,329,624	303,260	489,538	140,438	486,836	195,182	3,514,734	815,381				
Oregon	660,369	134,964	496,886	156,975	1,208,222	208,904	749,024	249,640	2,142,249	157,826	223,041	63,578				
California	1,637,216	303,160	7,693,962	1,550,141	3,902,328	426,116	702,180	216,954	9,998,135	1,750,536	216,765,078	16,035,398	19,078,971	2,272,574	821,539	63,412

*Includes Tangerines

Census of Agriculture 1950

FRUIT IN THE DIET

The entire industry has an opportunity to markedly increase fruit consumption due to serious nutritional problem of overweight people

By DR. MARY SPEIRS

FRUIT is a popular article in the diet of American families. The colorful and attractive fresh fruit displays in grocery stores and roadside stands, the large volume of canned and frozen fruits sold, and the rapid expansion of the fruit juice industry all testify to this popularity. People eat fruit principally because they like it. Fruit delights them with its variety of colors, shapes, textures, and flavors. Moreover, it carries the recommendation of the nutritionist as a protective food, a "food for health."

Fruit is no longer a luxury available only to the wealthy, nor is it a strictly seasonal commodity. The majority of American families use fruit in one form or another throughout the year. Nevertheless, income does affect the amount of fruit which people use, and some families use little or none.

In a survey of city families in 1948 the Bureau of Human Nutrition and Home Economics found that fruit purchases increased with rising income. This was particularly evident in the case of fresh or frozen fruit. Although a majority of households used fruits, many families did not, with income again being a determining factor. Only 77 per cent of families with incomes of $2,000 to $3,000 reported citrus fruits or other fruits and only 61 per cent used canned fruits. With decreased incomes fewer families used these commodities while in the higher income brackets more families had them. Considering these findings it would seem that many more families might be educated to use fruit. It also would appear likely that more fruit might be bought if low enough prices prevailed to attract buyers from families with moderate or low incomes.

Much greater progress must be made in producing, transporting, and marketing fruit, so that prices may be lowered to that point where large volume sales may be made to families with the lower incomes. Educational programs to tell people the value of fruit in the diet could be greatly expanded, as Dean Halliday emphasized in a recent article in AMERICAN FRUIT GROWER. The fact that about one-third of the money spent for fruit goes to citrus fruit is not due solely to the aesthetic appeal of citrus. Efficient distribution, quality control, and an educational campaign on nutritive value have influenced the homemaker to believe that citrus fruit is worth buying for her family.

Citrus fruits are an excellent and dependable source of vitamin C. Other fruits, such as strawberries and cantaloups, are also excellent sources, and many fruits contribute smaller but valuable amounts to the daily requirement. Varieties of fruits may vary greatly in vitamin C content. For example, avocados may vary from 7 to 37 mg. (milligrams) of vitamin C per 100 gm. (grams), raspberries from 20 to 32 mg., dewberries from 25 to 33 mg., and peaches from 4 to 13 mg.

By recognizing the appeal of high vitamin C content to the consumer and growing the varieties highest in vitamin C as well as in other qualities, producers may improve the position of their crop in the retail market. Of course, this has to be approached from a practical standpoint since fruit growers can grow only high-producing varieties economically. In selecting a variety the producer should pick the one highest in vitamin C that will give profitable production.

There are other nutritional values in fruit besides vitamin C content. Some fruits, such as cantaloups, yellow peaches, apricots, and prunes, are rich sources of vitamin A value. This is also true of the less commonly used tropical fruits, mangoes and papayas. Nuts are high in protein content, and both avocados and nuts are high in fat and hence in caloric value. Fruits may also serve as physically helpful agents by adding soft bulk to the diet, which contributes to better intestinal hygiene and habits of elimination. In this respect fruit can be more beneficial than harsh roughages or laxative and cathartic drugs habitually used. Fruits also contain mineral elements which aid in maintaining a desirably high level of alkaline reserve in the body.

Fruit and the Waistline

A positive approach to a serious nutritional problem might be made by the fruit industry. A large proportion of our adult population, about 20 per cent, is overweight. The dangers of this situation are evident in the statistics of life insurance companies which clearly show that overweight after 30 leads to decreased length of life and increased incidence of degenerative diseases. Since overweight is caused by taking in more calories than are used up as energy, our adult population is evidently overeating at least in respect to calories.

Weight control is highly desirable. On this point nearly everyone will agree. To accomplish such control, a change in our food habits to match the changed energy demands of everyday living must be made. When men and women used up large amounts of muscular energy in their daily work,

(Continued on page 54)

Dr. Mary Speirs is head of the Home Economics Department at the Georgia Experiment Station, Experiment, Ga.

TWO WAYS OF MAKING FRUIT AVAILABLE FOR BETWEEN-MEAL SNACKS . . .

The Fruit-o-matic dispenses cold, crisp, fresh fruit. Made by Fruit-o-matic Mfg. Co., 5225 Wilshire Blvd., Los Angeles 36.

The machine made by Apple Capital Mfg. Co., Inc., P.O. Box 612, Wenatchee, Wash., dispenses cold, fresh fruit juices.

Seth Anderson

Mr. and Mrs. Austin Coons of Lowell, Mich., have developed a profitable business through processing fruits and vegetables.

WHEN off-grade fruit became a problem for Austin Coons of Lowell, Mich., he enlisted the services of his capable wife and developed their "Home Style" brand of canned fruits. In 1950 they put up 4,000 cans of sauce which found quick acceptance by the consumers of Grand Rapids and Lansing because people liked the rich flavor that comes only from tree-ripened fruit. Now, the Coons also can red raspberries, peaches, prunes, and sweet corn.

Mr. and Mrs. Coons have pooled their ingenuity and resourcefulness to make their little business grow into a bigger one. Austin Coons says, "You must put up a product with better flavor and higher quality than is possible under large commercial canning operations if you expect to compete with them. You have to add something they can't."

Quite frequently the quality of personal character is a determining factor. Mr. and Mrs. Coons exemplify this, too.

WELL DONE

Resourceful growers found better ways to grow and sell fruit

J. FLINT WALLER, whose Peerless Orchard is located in the broad Shenandoah Valley at Staunton, Va., believes orchard accounting is much more than a mere record of expenses and receipts. It is an important tool of orchard management to develop information on which to base decisions.

He doesn't believe detailed cost records are always necessary, but does make close cost estimates, based on factual data, with a sharing of general and overhead costs.

For instance, in packing a wrapped box of apples and a second face and fill basket, the labor cost per packed bushel was found to be the same. Question: Was this justified by the factors involved?

Flint Waller is a successful grower, and one of the keys to his success is that he knows how to make every dollar count. He knows, also, how to project his estimates into the future which gives him an invaluable guide by which to chart future orchard developments.

He points out that decisions such as when to retire a given block of trees and what variety to replant depend quite largely upon the prospective annual value of the yield of the block, the costs applying to the block and the probable net profit or loss.

Daily or job estimates help keep the orchard manager from making costly mistakes. Waller believes. Estimating is a useful tool, he cautions, only if the following conditions are fulfilled:

1) It must be accurately done, based on correct appraisal of pertinent factors.

2) It must be correctly interpreted, true relationships and meanings recognized.

3) It must lead to positive action, confirmatory or corrective.

J. Flint Waller, Staunton, Va., finds good accounting an aid to success.

FOR 1951

ROY LYON, who lives four miles north of Lindale, Tex., has made a success with berries. He grew his first blackberries forty-five years ago, starting with six acres of Lawton and McDonald. Now he has 85 acres in blackberries which mostly go to the canners and freezers at Lindale.

"One of the reasons that I grow berries," says Roy Lyon, "is the deep sandy soil on my farm which is peculiarly adapted to blackberry production." He was one of the first to realize the potentialities in the Norfolk sand soil for berry production.

He believes that four years of heavy bearing takes the plants through their period of maximum vigor, although some of his neighbors have 16-year-old plants still producing fair crops.

"All growers who are making new plantings of blackberries should be sure to get roots from plants that are disease-free," he cautions. Lyon considers proper fertilizing, pruning, and regular cultivation to be the essential features of his success.

Lyon fertilizes with 250 pounds per acre of a 5-10-5 when the plants are in full bud. During the growing season when the new canes reach a height of three and one-half feet they are topped to encourage branching which makes the picking job easier and increases yields.

No time-waster, Roy Lyon believes in finishing every job on schedule, which is another important reason for his successful berry planting.

H. F. Morris

Roy Lyon, Lindale, Tex., has made a success with his 85 acres of blackberries.

Peach grower, T. H. Carroll, Woodbury, Ga., believes in conserving the soil.

E. F. Savage

T. H. CARROLL of Woodbury, Ga., believes in conserving the soil. "I have been careful to select frost-free sites on the best soil possible," he says, "and after I've found such a place I intend to keep the soil." He has the best luck preventing erosion by using Korea lespedeza on the row middles with cultivation along the tree rows. The lespedeza is kept mowed closely so as to prevent it from using too much water. "Lespedeza plus broad terraces which machinery can work over has saved my land and helped to maintain high production," he believes.

Carroll says high production per tree is the secret of success in the peach business. "You need an average of four or five bushels, not one bushel per tree, if you expect to make a good profit."

He uses a lot of fertilizer—six to eight pounds of a balanced fertilizer like a 6-8-6 in March and then later in the season one pound of nitrate of soda per tree. "It pays off," he says, "and I get a lot of new wood for fruit production. After I get this new wood, I don't prune it all off, either. Most people do too much pruning. If you do all these things and put a peach on the market that is ripe enough to eat, you can make good money in peaches. You have got to be alert though, and don't think the fruit business doesn't require constant close supervision."

WELL DONE FOR 1951

Hartford Courant

Ben Funk and an attractive apple display at his combination market and cold storage.

FORTY years ago Daniel W. Andrews started selling fruit under the shade of the old maple trees at his orchard at South Glastonbury, Conn. Seven years ago Bernard W. Funk, Dan's son-in-law, took over operation of the orchards and the expanding roadside business. A well-traveled road runs past the orchard and it wasn't long until Ben Funk was selling a good share of the apples, peaches, melons, and potatoes he produces on his 40 acres.

Two years ago the Funks built a new roadside market with cold storage room attached. The modern cold storage plant and sales building was made on a 200-foot frontage and has good parking facilities.

Ben and his wife, Dorothy, operating the business as a team, stress the importance of raising high-quality fruit, and feel there is no substitute for top-notch grading of that fruit. Hence, all grading is done by themselves. Ben feels that the selling of fruit direct to an established roadside clientele keeps him striving to become a better fruit grower because, over the years, customers become friends and the quality of the fruit is the "tie that binds."

SELECTED Wenatchee-Okanogan "Grower of the Year," Roy Larsen of Leavenworth, Wash., made his success through the co-operation of the people who work at his ranch and the state and USDA scientists who have aided him with his problems. "If we've learned one thing in recent years," he said, "it's that growers can't combat their problems all alone."

A former county agent, Roy Larsen has not been content with doing an average job. The best pruning, irrigation, fertilization, and spraying practices in Washington are carried on at his 60-acre orchard.

Realizing that high annual yields are the surest way to cut costs per

Wenatchee Daily World

Roy Larsen, Washington's "Grower of the Year."

bushel, Roy has carried out a vigorous tree replanting program using winter-kill resistant hibernal stocks. Nearly 1,500 trees have been planted with hibernal stock. Located high up in a late season climate, winter kill has been a difficult problem, but he is well on his way to overcoming it.

There is also a labor problem in the higher orchards since people prefer warmer working conditions. To offset this disadvantage, Roy has built excellent cabins, good shower rooms, and other comfortable facilities. The same workers come back every year and take pride in their jobs.

His entire orchard is under sprinklers and fine cover crops of Ladino clover, grass, and fescue mixtures help to prevent erosion and build the soil. His largest block is Red Delicious which yielded 23,000 boxes of fruit last season from about 40 acres.

PROGRESS makes its own reward for Al Goodwin, Manteca, Calif. Born 60 years ago on the same ranch he now operates, he knows what progress means. New machines and new practices in agriculture do not just happen overnight. They develop from fitting one idea over another, then building, trying, and building again. Most of all, new ideas must not appear too soon. Timing is important.

For example, no fruit grower wanted to trust the handling of a spray gun to a mechanical gadget until he was forced into it by shortage of labor. Then he mechanized and wondered why he was so long doing it. A. D. Goodwin built such a power-driven gun carrier first for himself, then for his neighbors. Al was not given a big family—just a girl and a boy. Perhaps these are two reasons in his interest in laborsaving equipment for the orchard. He has built weeders, weed sprayers, pumps, elevators, fork lifts, and clod busters in his own shop.

The outstanding example of laborsaving equipment A. D. Goodwin and Son built is a mechanical harvesting attachment which works from a tractor. This rake-type unit first harvested almonds knocked on prepared ground. Then it was used on a neighboring walnut ranch. Now it has picked up, in and out of California, such fruits and nuts as apples, plums, figs, tung nuts, pecans, peanuts, and next season will be tried on apricots. Mechanical fruit harvesting is no longer a dream because of Al Goodwin's imagination and determination.

Hal Higgins

Grower-inventor A. D. Goodwin, Manteca, Calif.

SPRAY NuGREEN® ON YOUR APPLE TREES

FERTILIZER COMPOUND

. . . For better results with NITROGEN

- **The leaves absorb the nitrogen of "NuGreen"** quickly from foliage sprays.
- **Save labor.** Apply "NuGreen" in pest-control sprays and do two jobs in one.
- **Control nitrogen supply for a better crop.** With "NuGreen" sprays you can supply exactly the amount of nitrogen the trees need.
- **Get quick, sure response even** in dry weather when roots can't absorb nitrogen from the ground.
- **Safe for foliage and equipment.** Does not tend to burn leaves or corrode metal when used as recommended.
- **Prevent waste.** Feed your trees the nitrogen they need and no more.

"NuGREEN" Shows Promise For Other Fruits

Nine years' experience has already proved the special values of "NuGreen" sprays for apples in the East and Midwest. Spray application is now also proving useful in West Coast apple areas.

Trial sprays of "NuGreen" now show promise also for peaches, pears, cherries and prunes. For these fruits, however, only small-scale grower tests are advised until exact spray recommendations can be developed.

Use of "NuGreen" in irrigation water has likewise proved effective for many fruits, including strawberries, citrus and others.

ASK YOUR DEALER *for recommended spray schedules and how to use "NuGreen" on apples. Ask your fertilizer dealer also for booklets describing uses of "NuGreen" that have special advantages for certain other crops.*

Polychemicals Department
E. I. du Pont de Nemours & Co. (Inc.)
Wilmington, Delaware

DU PONT
REG. U.S. PAT. OFF.

NuGREEN®
FERTILIZER COMPOUND

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

CALENDAR OF COMING MEETINGS AND EXHIBITS

Jan. 7-9—American Pomological Society annual meeting in joint session with Virginia State Horticultural Society 56th annual meeting. Hotel Roanoke, Roanoke, Va.—W. D. Armstrong, Sec'y, APS, Princeton, Ky.; John F. Watson, Sec'y, Va. Society, Staunton, Va.

Jan. 8-10—Western Washington Horticultural Society annual meeting, Fruitland Ave. Grange, Puyallup.—Ira C. D. Schwartz, Sec'y-Treas., Box 37, Puyallup.

Jan. 8-10—Massachusetts Fruit Growers Association, Inc., annual meeting, Worcester.—William Cole, Sec'y, Amherst.

Jan. 9-11—Indiana Horticultural Society annual meeting, Murat Temple, Indianapolis.—Ray Klinkle, Sec'y, West Lafayette.

Jan. 11—Arkansas State Horticultural Society annual meeting, Springdale.—Earl J. Allen, Sec'y, Fayetteville.

Jan. 15-17—New York State Horticultural Society 97th annual meeting, Rochester.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 16-17—Maine Pomological Society winter meeting, in conjunction with Annual Trades Show Exhibit, Lewiston.—Rockwood N. Berry, Sec'y, Livermore Falls.

Jan. 22-24—New York State Horticultural Society eastern meeting, Kingston.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 23-24—South Carolina Horticultural Society annual meeting, Spartanburg.—Roy J. Ferrer, Sec'y, Clemson.

Jan. 28-Feb. 2—New Jersey Farmers Week, Trenton.—Fred W. Jackson, Director, Div. of Information, Dept. of Agr., Trenton 8.

Jan. 29-31—New Hampshire Horticultural Society 54th annual meeting in conjunction with annual Trade Show, Putnam Hall, University of New Hampshire, Durham.—Daniel R. Batchelder, Sec'y, Wilton.

Jan. 29-31—Pennsylvania State Horticultural Association annual meeting, Yorktowne Hotel, York.—John Ruf, Sec'y, State College.

Feb. 1-2—Utah State Horticultural Society annual convention, Newhouse Hotel, Salt Lake City.—Gene H. Oberly, Sec'y, Logan.

Feb. 6-8—West Virginia State Horticultural Society annual convention, Martinsburg.—Carroll R. Miller, Sec'y, Martinsburg.

Feb. 7-8—Idaho State Horticultural Society 57th annual meeting, Hotel Boise, Boise.—Anton S. Horn, Sec'y-Treas., Boise.

Feb. 14-15—Fruit Conference, University of Georgia, Athens.—Geo. H. Frost, Extension Horticulturist, Athens.

Feb. 20-22—Ohio State Horticultural Society 105th annual meeting, Cleveland Hotel, Cleveland.—C. W. Ellenwood, Sec'y, Wooster.

"We have to tell certain people how to use this for spraying. This label was made for those who can't read!"

AMERICAN FRUIT GROWER

CONCENTRATE SPRAYING EQUIPMENT

PROPER DESIGN AND VELOCITY IMPORTANT

By M. A. DEVEREAUX

This is vital information on mist application equipment to guide the fruit grower, vegetable and field crop operator, on the newest machinery for concentrate application. The importance of this article stems from the fact that the adoption of concentrate spraying offers all growers a great opportunity to reduce materially the cost of production.

CONCENTRATE spraying means different things to different people. Even those authorities who have been working on concentrate spray equipment differ in their meaning of this new phase which has, more than any other single improvement, given all growers a realistic, workable plan of drastically reducing production cost. By concentrate spraying we mean employing the same amount of chemicals as in dilute spraying, but reducing the amount of water used by at least eight times. To accomplish this requires equipment specially constructed to properly handle the application of concentrate sprays.

Even before World War II, much thought and work had been done by Experiment Stations and Agricultural Colleges nationwide to build a machine which would successfully handle concentrates. With the advent of D.D.T., which served as the basic concentrate material, and the rapidly increasing costs of production, the development of the concentrate sprayer became increasingly essential. The first manufacturers to recognize the serious problem of increasing costs facing the nation's growers was the Buffalo Turbine Agricultural Equipment Co., Inc. of Gowanda, New York. After considerable experimentation and testing with the Federal Government they offered, early in 1946, the first concentrate sprayer.

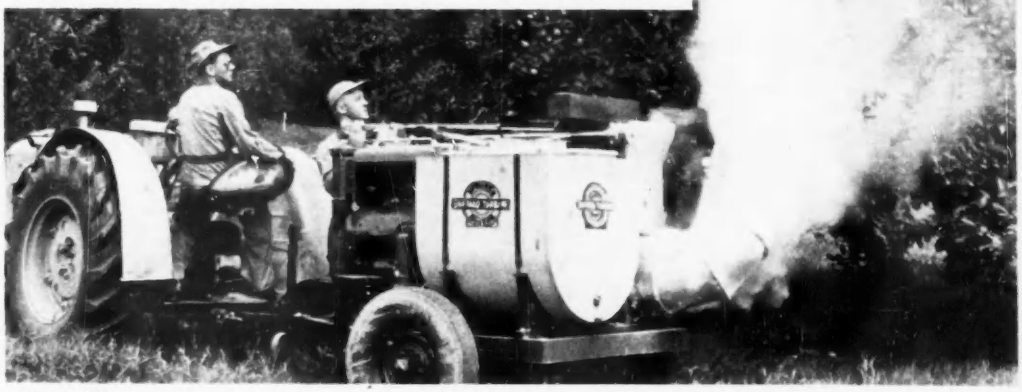
Constant research and development through close cooperation with growers for the past five years resulted in many changes and improvements which make the Buffalo Turbine Sprayer-Duster the acknowledged leader in the field.

Records of savings made in concentrate spraying vary in man-hours, machine-hours and materials largely because of two factors. One is the human factor, and the other is the design of the equipment. Many growers have made savings with the use of converted spraying equipment. Re-design of the machine, however, more than anything else contributes to constant and unvarying results, particularly if the blower, the pump and the discharge nozzles have been built to function as a unit. Such design and construction are found in the Buffalo Turbine Sprayer-Duster, where a high velocity of air is used to insure penetration and coverage.

Perhaps the most exhaustive tests were conducted in Illinois by Harry Hatcher, Orchard Manager for the Thomas S. Smith & Sons Company, one of the largest orchardists in the mid-west. In 1950 this company purchased a Buffalo Turbine for comparative test purposes with their eight conventional sprayers which were towed through the orchard by crawler tractors and supplied with water by eight nurse trucks. Results demonstrated that the Buffalo Turbine gave equivalent control and resulted in substantial savings in original cost, labor, material and maintenance. Because of these inescapable facts, this grower purchased four additional Buffalo Turbine Orchard Models for the 1951 Season. 1951 results were even more favorable than the year before. During 1952 this large fruit-growing operator will rely entirely on Buffalo Turbine equipment and lighter tractors. These results, carefully tabulated by the Thomas S. Smith & Sons Company, indicate clearly that all growers can make similar savings through the use of concentrate spraying.

Complete information on these tests and other facts on concentrate equipment can be had by writing

BUFFALO TURBINE
AGRICULTURAL EQUIPMENT CO., INC.
GOWANDA, N. Y.



CHERRIES

(Continued from page 18)

brought about a real problem of orderly marketing. Canners and growers have almost unanimously combined in a voluntary sales promotional program through the National Red Cherry Institute.

Red Cherry Prices Received by Growers in Grand Traverse Area (Mich.), 1914-51, with July Wholesale Price Levels in U. S. and Red Cherry Prices Adjusted to a 100-cent 1935-39 Dollar.

Year	Cherry Prices per lb.	Wholesale* Prices 1935-39=100	Adjusted Cherry Prices per lb.
	Cents	Per Cent	Cents
1932	1.5	80	1.9
1933	2	86	2.3
1934	2.5	94	2.7
1935	2.5	99	2.5
1936	3	100	3.0
1937	4	109	3.7
1938	3.5	98	3.6
1939	2	94	2.1
1940	2.75	96	2.9
1941	5	111	4.5
1942	6	123	4.1
1943	8.5	129	6.6
1944	7.75	129	6.0
1945	16.5	132	12.5
1946	16	158	10.1
1947	9	185	4.8
1948	9.75	210	4.6
1949	8.75	191	4.6
1950	7.25	203	3.6
1951	7	222	3.2

*Bureau of Labor Statistics, U.S. Department of Commerce series adjusted to a 1935-39 Base.

It is proposed for the 1952 season in Michigan, that a uniform and mandatory inspection of the raw fruit be inaugurated, carrying with it complete rejection of low-grade fruit. This also would be accompanied by a program for the rigid inspection of the cherries after processing. Nothing would better aid the work of the National Red Cherry Institute in its efforts to increase the consumption of red tart cherries than the adoption of this program by the entire cherry industry.—*A. J. Rogers, Cherry Growers, Inc.*

Drastic Drop in Sweet Cherry Production

In 1951, for the second consecutive year, sweet cherry production hit a low mark in the three western states of Washington, Oregon, and California. Early indications had pointed to a heavy cherry crop in the Northwest.

PRICES
SWEET CHERRIES, ALL METHODS OF SALE

Season Average Price Per Ton Received by Grower

	Dollars		Dollars
1940	111.00	1946	280.00
1941	117.00	1947	256.00
1942	141.00	1948	276.00
1943	230.00	1949	155.00
1944	275.00	1950	238.00
1945	272.00	1951*	292.00

SWEET CHERRIES, PROCESSING

	1949	1950	1951*
New York	144.00	146.00	176.00
Michigan	122.00	136.00	182.00
Washington	119.00	202.00	240.00
Oregon	125.00	241.00	285.00
California	162.00	213.00	335.00

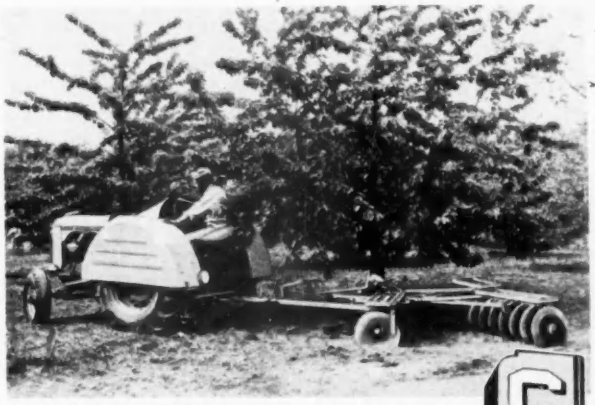
Only 401 carloads of sweet cherries from Washington and 103 carloads from Oregon were shipped to fresh market in 1951. This compares

(Continued on page 40)

In the shadow of Mount Hood, along the Old Oregon Trail, V. F. Carson grows raspberries worth a thousand dollars an acre. It means a lot to him to have a harrow that lifts clear, yet floats free, that is quickly mounted and easily controlled. Here his Case "VAO" Tractor is shown with the Case "LD-46" Offset Harrow. The Case Eagle Hitch gives him one-minute hook-up to a wide choice of rear-mounted, hydraulically-controlled implements.

On the Old Oregon Trail or Along Lake Michigan

IT'S THE SAME STORY OF SAVINGS WITH CASE TRACTORS



From all parts of the country comes the same story of savings with Case Tractors. You have choice of three sizes in orchard and grove tractors. Besides the low-cost 2-plow "VAO," there is the bigger 2-plow "SO." The fast 3-plow Model "DO" can be ordered factory-equipped for LPG fuel, gasoline, or low-cost tractor fuels. With any of these tractors you get fuel economy, a moderate-speed engine with lugging power to pull right through tough spots, replaceable cylinder sleeves, complete dust sealing throughout. All this helps you save money in repair bills, get extra years of use from your investment. There is a wide selection of Case implements—harrows, tillers, plows, mowers. Start now to save money—and time, too. See your Case dealer.

For his orchard near Lake Michigan, Julius Marshall needs a tractor built low and close to the ground. He needs a tractor that is narrow and has a short wheel base, so he can turn short among his trees. He also needs a tractor with plenty of eager power. The Case "DO" Tractor meets all these needs besides giving him low operating costs per acre and low upkeep year after year. He is shown in his orchard at Traverse City, Michigan, pulling a Case "R" Disk Harrow with "DO" Tractor.

SEND FOR SPECIAL FOLDER

Case builds 25 great tractors, a full line of farm machines. For catalog or folders, mark here or write in margin any that interest you. J. I. Case Co., Dept. A-15, Racine, Wis.

☐ 2-Plow "VAO" Tractor
☐ Larger 2-Plow "SO"
☐ 3-Plow "DO" Tractor
☐ Mounted Harrows
☐ "R" Disk Harrows
☐ Springtooth Harrows

NAME

POSTOFFICE

RFD STATE

CHERRIES

(*Continued from page 38*)

to the 11-year average of 891 carloads a year from Washington and 153 carloads from Oregon.

California also experienced a much reduced cherry crop. Bing cherries, a favorite fresh shipping variety, were in particularly short supply. Carlot shipments of fresh cherries from California totaled 533 carloads for the season, compared with 1,001 in 1950 and a 10-year average of 751 carloads.

Utah, alone of the western states, experienced a relatively good cherry production year, 309 carloads of cherries going to market as compared with the abnormally low shipment of 22 carloads in 1950.

In spite of the gloom attached to the year 1951, the western cherry industry continued to look ahead to improved methods of growing and marketing cherries. Experiments conducted to discover ways to prevent cherry cracking now show signs of eventual success. Dr. R. L. Bullock of the Wenatchee Tree Fruit Experiment Station carried on tests with naphthaleneacetic acid used as a spray on cherries to reduce cracking.

Prepackaging Tests

California, Oregon, and Washington shared in a continuation of cherry prepackaging experimentation by the Washington State Fruit Commission and the USDA.

Results of the experiments indicated that the double row-faced 15-pound packed cherry box still enjoys a comfortable lead in consumer preference.

Rain Damage

The heavy rain damage experienced by cherry growers in Washington and Oregon for the second succeeding year proved of especial concern to growers. They observed that the rains appeared to coincide with periods of artificial nucleation or rain making activities of wheat growers in areas adjacent to the irrigated fruit-producing lands.

Cherry Institute

Working closely with the Washington State Fruit Commission on behalf of the Northwest cherry industry is a uniquely successful growers organization named the Cherry Institute. Embracing all cherry growers of central Washington, the Cherry Institute has taken a lead in stimulating cherry research, industry-wide cherry pest control activities, and desirable state and federal legislation.—*Fred H. Westberg, Washington State Fruit Commission.*

"BETTER FRUIT AT LESS COST" ...JOHN BEAN

All types of orchard automatic spraying needs are met by the John Bean line, now augmented with the Speedaire air-spraying attachment for high pressure sprayers, and the new Model 29-L Speed Sprayer.

New! Low-Cost Spraying With Your High Pressure Sprayer And a John Bean SPEEDAIRE

MORE PROFITS through savings in time, labor, and materials, are advantages of using the one-man operated John Bean Speedaire attachment which easily converts your high pressure sprayer into a modern mist-sprayer. More air output with less power is obtained with a Speedaire because of the true axial-flow fan. The ten-blade, 29-inch propeller delivers air in large volume and high velocity for thorough coverage with either concentrate, semi-concentrate, or dilute spray materials.

Change spray direction in seconds with the single action converter. A single moving part lets you change spray to right, to left, or to both sides at ends of rows to take advantage of wind and save "deadhead" travel.

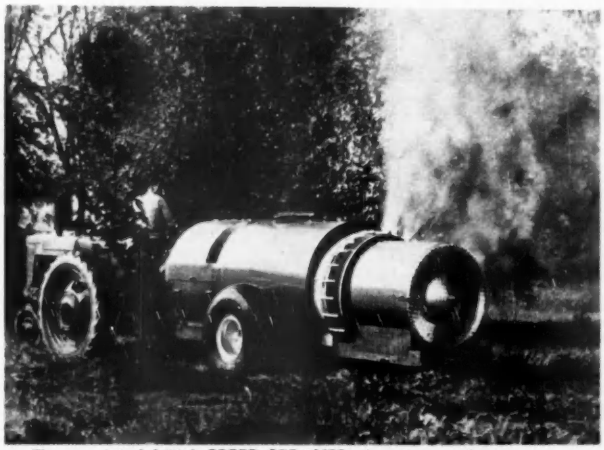
Fit the spray pattern to the size of the trees with the Speedaire adjustable height director. You get into the tops of the tallest trees and get the penetration you need for thorough coverage.

The new John Bean Speedaire is the answer to the need for a lower cost air-type sprayer. The Speedaire gives you true John Bean quality and performance—brings you features, convenience and savings never before available on this type of sprayer.

John Bean SPEEDAIRE gives thorough coverage.

Automatic Spraying with LOW-BOY

Labor savings are substantial when the John Bean automatic Low-Boy dilute spraying equipment is mounted on your John Bean high pressure sprayer. The Low-Boy operates on sprayers discharging 20 to 60 gal. per minute.



The new Model 29-L SPEED SPRAYER gives top performance

Smaller Speed Sprayer For More Profits

More growers can now enjoy the desirable extra protection, and labor savings for which John Bean Speed Sprayer is famous. The new Model 29-L brings true Speed Sprayer performance to the smaller orchard. You save labor with one-man operation. The tractor driver operates all controls, while spraying. Change spray direction to spray left, right, or both sides with instant changeover. You control spray height too, to fit the spray pattern to your trees. Spray dilute or concentrates with the 29-L Speed Sprayer to meet your day-to-day spraying needs. Speed Sprayer is also available in the model 36-L for larger orchards.

Ask your John Bean dealer for a demonstration, or write for new catalogs on Speedaire, Speed Sprayer, and Automatic Spraying. High Pressure sprayers available from 3 to 60 gallons a minute output, for all spraying needs.

Write for NEW 1952 CATALOGS to Dept. AF-1.

fmc

JOHN BEAN Dept. AF-1, Lansing 4, Michigan • San Jose, California

DIVISION OF FOOD MACHINERY AND CHEMICAL CORPORATION

PLUM & PRUNES

(*Continued from page 23*)

October which compares with 562 and 650 unloaded in this market in the years 1950 and 1949, respectively.

Greater Volume—Lower Prices

Prices received during 1951 were somewhat below those obtained in the good marketing year 1950, the all-auction average being $3.28 per standard crate as compared with $4.02 in the prior year. Santa Rosas, which comprised approximately 40 per cent of the crop, averaged only $3.07 per crate in 1951 as against $4.33 in 1950, the higher price in 1950 reflecting the smaller volume (1,519 cars as compared with nearly 2,000 in 1951) and the much smaller shipments of competitive fruits, particularly southeastern peaches.

Shift in Acreage

Plum production in California has been characterized by an acreage shift from northern, and hence later districts, to the earlier producing area of the lower San Joaquin Valley. The new plantings have been heavy to early varieties, principally Santa Rosa.

In 1940 there were only 4,550 bearing acres of Santa Rosas in the state which produced 953 cars; by 1949 there were 7,545 bearing acres from which 1,734 cars were shipped.

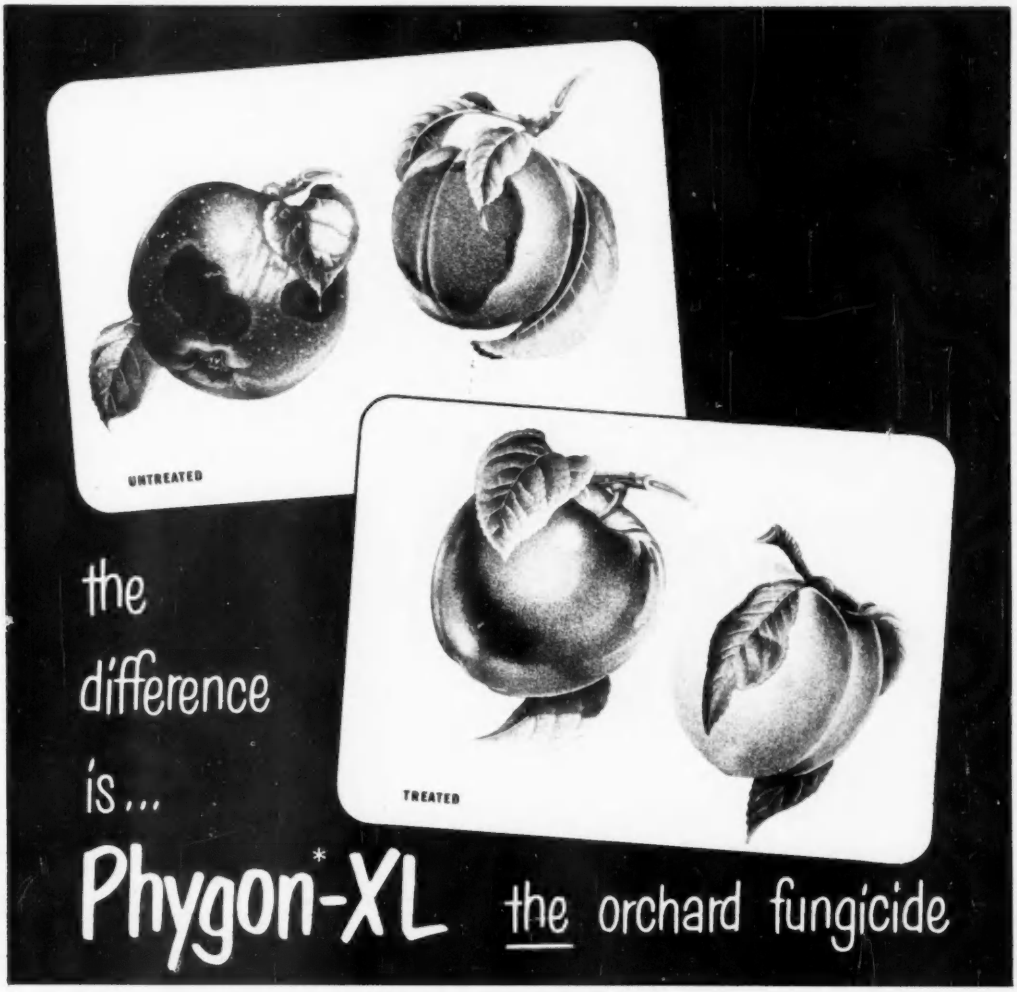
PRICES

Season Average Price Per Ton Received by Growers

	1949	1950	1951*
	Dollars		
PRUNES, FRESH			
Idaho	41.50	117.00	70.00
Oregon	62.30	145.00	121.00
Washington	43.50	120.00	89.00
PRUNES, DRIED DRY BASIS			
Washington	77.00		166.00
Oregon	140.00	225.00	192.00
California	164.00	245.00	166.00
PRUNES, CANNED			
Idaho	70.60	82.10	45.00
Washington	70.90	93.10	52.00
Oregon	71.00	97.00	50.00
PRUNES, FROZEN			
Washington	72.70	82.40	52.00
Oregon	70.60	99.60	50.00
PLUMS, ALL METHODS OF SALE			
Michigan	57.00	89.00	111.00
California	105.00	180.00	145.00

Marketing Regulations

California plums shipped in interstate commerce have been regulated since 1935 by the California Tree Fruit Agreement and many believe that the standards prescribed have been responsible for making a profitable business of plum production. It can be stated, at least, that California plum offerings on the nation's markets are now far superior to those of 15 years ago. Minimum sizes of most varieties now sold are fully one size larger than those marketed in the early 1930's, and regulations prohibit the shipment of fruit until it has reached a maturity level which assures the proper completion of the ripening process.—*Galen Geller, California Tree Fruit Agreement.*



the difference is...

Phygon*-XL the orchard fungicide

Controls: apple scab, bitter rot of apples and peaches, California blight of peaches, brown rot and blossom blight of peaches, peach leaf curl, cherry leaf spot and other fungus diseases. Phygon-XL has proved to be the most potent non-mercurial fungicide commercially available.

Results: increased yields of top-quality apples and stone fruits.

Advantages: extremely low cost per acre, very easy to apply, compatible with most commonly used fungicides and insecticides, harmless to pollen and bees.

*U. S. Pat. No. 2,349,772

Consult your local experiment station for recommended dosages, spray schedules and customary safety measures. Write for free Phygon-XL Bulletin #3 to:

UNITED STATES RUBBER COMPANY

Naugatuck Chemical Division, Naugatuck, Connecticut

manufacturers of seed protectants—Spergon, Spergon-DDT, Spergon-SL, Spergon-DDT-SL, Phygon Seed Protectant, Phygon Naugets, Phygon-XL-DDT, Thiram Naugets—fungicides—Spergon Wettable, Phygon-XL—insecticides—Synklor-48-E, Synklor-50-W—fungicide-insecticides—Spergon Gladiolus Dust, Phygon Rose Dust—miticides—Aramite.

"BY THEIR FRUIT YE SHALL KNOW THEM"

The Big 3 OF MODERN FRUIT GROWING

RICHMORENCY

To market first, with the highest quality. This new Greening cherry combines the high quality of Montmorency and the early ripening of Early Richmond. Grown from certified budwood stock, this cherry has proven itself in Michigan commercial production.

GRAHAM APPLE

Originated in the orchards of the Manistee Orchard Fruit Company. It has all desirable characteristics of Northern Spy, maturing earlier than Northern Spy, harvested after McIntosh. Fruit is highly colored—deep crimson.

FERTILE HALE

The outstanding Money-Maker of the peach family. This new Greening introduction is a Hale-type peach which is self fertile, requires no cross pollination. The Fertile Hale ripens in September and brings 25 to 50 cents per bushel more than the Elberta. More dollars per acre with this new variety.

● Greening's trees are thoroughbreds. Over thirty years of scientific Bud Selection in developing certified nursery stock for fruit growers everywhere means greater production, prevention of deterioration, improved commercial varieties, the elimination of virus disease, and the perfection and stabilization of desirable traits. Greening Bud Selection is a Greening feature; you cannot buy it in any other fruit trees or the resulting higher production and profits.

Ornamentals, Too

Don't forget that Greening Nursery Company put the same careful selection into ornamentals. Beautify your roadside stand, packing house, cold storage and home with our ornamentals. Greening landscape architects are available to you for free consultation and a master working plan to fit your needs. Our plans show you what to plant and where. Behind every sale is the Greening reputation.

Earn Extra Money

It's pleasant and profitable to sell Greening nursery stock on a full or part-time basis. Your friends and acquaintances will welcome you. Your commission checks in many cases amounting to $50.00 a week will help improve your own orchard and home. National advertising and the best nursery stock available anywhere make Greening trees easy to sell. Experience is not necessary.

Greening Nursery Co., Monroe, Michigan

- ☐ Send me more information on Greening's 3 New Varieties
- ☐ Send 10c for a copy of the 1952 Greening colored catalog
- ☐ I am interested in Ornamentals and your Home Landscape Plans
- ☐ Check here if you would like to sell Greening stock for added income. Outdoor easy work—No experience needed.

Name .....

Address .....

- BETTER YIELDS
- BIGGER PROFITS
- BETTER SALES

Write Today!

GREENING'S BIG NURSERIES — TREES YOU CAN TRUST — MONROE, MICHIGAN

THE GREENING NURSERY COMPANY
P.O. BOX 605 MONROE, MICHIGAN

ASK THE MAN WHO PLANTED THEM!

GRAPES

(Continued from page 22)

by the middle of October, which was 731 cars more than to the same time in 1950.

All in all this is not a fat year for the grape grower. Nature has been too bounteous, foreign raisin markets are depressed, wine prices are low, and new taxes are being added to wine.—*Jack T. Pickett*

Eastern Production

Production records for the 10 important grape producing states in the East and Middle West are listed below.

PRODUCTION —Tons

State	1940-1949 Av.	1950	1951*
N. Y.	53,720	104,000	62,400
Mich.	33,560	44,900	9,000
Wash.	17,510	23,000	20,200
Penna.	16,100	32,900	17,700
Ohio	14,900	22,400	19,400
Ark.	9,720	12,400	12,400
N. C.	5,130	8,500	5,700
Mo.	4,490	4,600	3,600
Ill.	3,250	3,800	2,900
Iowa	3,110	3,500	3,100

Acreage and production of grapes in eastern and mid-western United States probably is much more stable at the present time than it was following World War I. There are three very likely reasons for this situation. First, much marginal acreage was eliminated because of low yields and low prices. Second, a considerable portion of the crop is now processed instead of being sold as fresh fruit. Third, the development of co-operative or semi-co-operative plants in which grape growers have a voice as well as a financial interest has resulted in better grower-processor relationships and has given definite assurance of supplies for processing.

The development of large glass-lined vats or tanks, capable of holding thousands of gallons of freshly pressed juice which can be kept sweet for long periods of time by the use of bacteria inhibating lights, has greatly improved the end product. By thus keeping the juice sweet for several months in these large vats, natural settling occurs which helps reduce or eliminate the cloudiness in the final bottled product.

The high sugar content of the 1951 crop and its general high level of quality should result in widespread and favorable acceptance of last year's grape products. This should apply to both fresh juice and the fermented products.—*Carl S. Bittner, Pennsylvania State College.*

FOREIGN PRODUCTION—Short tons

	1949	1950	1951*
France	6,340	9,616	7,861
Italy	6,510	6,603	6,660
Algeria	2,378	2,350	2,258
Spain	1,794	2,489	2,843
Turkey	1,940	1,542	1,322
Argentina	1,890	1,655	1,837
Portugal	1,261	1,257	1,125
Other countries	8,228	7,849	8,230
Total, foreign	30,341	33,361	32,136

APPLES

(Continued from page 15)

Prospects Favorable

Thus far it appears that the careful planning is having its effect. Although the opening prices were 16 per cent lower than in 1950, offerings by growers have been continuous and of good quality. Cautiously, with occasional brief setbacks, the market has advanced bit by bit, absorbing the steady heavy flow of apples. In New England the movement to late November was more than double that of 1950. Reports from other areas of the East indicate a similar pattern.

If apple growers continue to feed an orderly flow of apples to this strengthening market, 1951 can be a satisfactory selling season. — *John Chandler, New York and New England Apple Institute*

Midwest Crop

During the spring of 1951 anxious moments were spent talking about the possible winter injury damage from the cold weather of Thanksgiving week 1950. Temperatures in the Midwest during this period varied from below zero to several degrees above. Trees were not dormant and damage could have been serious. The first week in February another cold wave extended into the deep south. Temperatures dropped to 35° below zero in one place in Indiana, and 20° below was common throughout the area.

In spite of the anticipated winter injury an excellent crop set on all varieties in 1951.

During the first week in November, 1951, freezing temperatures were experienced throughout the Midwest. All apples unharvested—in crates in the open or in inadequately protected buildings—were destroyed. Some individual growers experienced severe losses, as thousands of bushels of apples were lost.

Disease and Insect Problems

In the past, growers have always added a fungicide to their summer sprays. However, with excellent scab control and very good insect control due to the use of DDT, fungicides have been omitted. This greatly reduced fungicidal spray program seems to have caused a serious outbreak of sooty blotch and various rots, some of which have not been identified.

Marketing Season

Sales and movement of good early apples were active. Prices were not high but the clean-up of the crop was good, especially in the southern area. During the harvest of fall and early winter apples, the market in Missouri,

Kentucky, Indiana, and Illinois was very good, but as soon as southwestern Michigan and other producing areas came into full harvest prices slumped. In nearly all producing areas, sales during the harvest continued considerably below cost of production.

Delicious, and especially the redbud sports, strengthened in price first because of a very firm opening in the Northwest. Jonathan followed with an increase and after the freeze the first week of November the market on all varieties improved considerably. Abandonment of small sizes, poor colored fruit, and odd varieties was very heavy. Growers were instructed to harvest for a net return, not a net loss.

The processor demand for fruit early in the harvest season was weak and at low prices, due to a large carryover of most processed apple items. After the freeze this situation changed quickly, with one and in some instances two increases in price.

FOREIGN PRODUCTION

	1949	1950	1951*
	Thousand bushels		
France	134,914	235,046	176,322
Switzerland	11,942	30,313	11,482
Germany	34,000	60,800	37,800
Italy	30,948	23,483	29,624
United Kingdom	29,031	26,030	34,847
Belgium	19,003	14,551	14,491
Canada	18,151	16,166	14,537
Japan	16,659	20,125	12,917
Other countries	122,402	125,471	123,102
Total, foreign	417,050	551,987	455,122

Midwest Council Formed

During the National Apple Institute meeting at St. Louis, the "Midwest Apple Council" was formed. States represented when organized were Michigan, Wisconsin, Ohio, Illinois, and Indiana, and Missouri, Minnesota, Iowa, Kentucky, Tennessee, and Arkansas were invited to participate.

The aim of this organization is to tie in the efforts of the individual Midwest groups more closely with national industry effort. Heretofore, there was no unified organization in the area to turn to on matters of price control, foreign trade, production and marketing costs, and other problems of interest to apple growers.—*Ray Klackle, Midwest Apple Council.*

CITRUS

(Continued from page 21)

Florida Production Continues to Climb

Terminating one of the most hectic years in the long history of the Florida citrus industry, a year which saw production of oranges, grapefruit, and tangerines exceeding the October, 1950, government estimates by almost 10 million boxes, growers, shippers, and processors today are facing another big problem—the merchandising of a record-breaking crop of 112 million boxes of citrus.

While it is difficult to report on Florida citrus on a calendar year basis because each year covers parts of two seasons, this much can be said for the January-December period in 1950: the peaks and valleys of consumer demand and prices were more pronounced during the marketing season than in many years.

Many thousands of acres of new groves, planted since the war, are coming into heavy production now and are further complicating the picture. It is freely predicted that in 1954 the state will produce 90 million boxes of oranges alone, barring disaster or calamity.

The USDA estimate for the 1951-52 season, now entering its fourth month, is 72½ million boxes of oranges, 35 million boxes of grapefruit, and 5 million boxes of tangerines. In the 1950-51 season, Florida actually utilized in all channels 67.3 million boxes of oranges, 33.3 million boxes of grapefruit, and 4.8 million boxes of tangerines.

Price Structure and Utilization

Despite all the ups and downs of the price structure last season, official reports show that growers averaged $1.63 a box on the tree for oranges and that the average production cost, before taxes, was 49 cents a box. Grapefruit averaged $1.02 on the tree, with an average production cost before taxes of 40 cents.

Florida canners and concentrators last season used 41.8 million boxes of the total orange crop. Grapefruit utilization by canners totaled 17.8 million boxes; and they also used 1.3 million boxes of tangerines.

F.o.b. sales by packers accounted for the bulk of the crop not going to canners or to the auctions, with intrastate utilization, express shipments, and a smattering of exports taking up the difference.

Co-op Trend

The biggest step in this direction was taken by the Florida Citrus Exchange, comprising some 45 co-operative packing associations in the state,

when it negotiated the purchase of all the Florida citrus processing facilities of the Snow Crop division of Clinton Foods, Inc., taking over concentrates and single strength juice plants at Dunedin, Frostproof, and Auburndale, along with all the other facilities.

The press hailed this as a "$35 million deal" but actually it obligates the Exchange for only a little over $11 million. The $35 million figure was reached by combining the sales price of the facilities with the $6 million estimated inventory value which will be liquidated without financial loss to the Exchange, and the product or warehousing financing of about $15 million, along with an operating "bankroll."

This will make the Exchange, through its newly formed subsidiary, Florida Citrus Products Exchange, to be managed by Charles W. Metcalf, former president of Clinton Foods, the largest concentrates organization of its kind in the world.

John T. Lesley, general manager of the Exchange, said the huge deal was based on the theory the Florida citrus grower must assume some of the financial responsibility for marketing the huge crop of fruit instead of depending on outside capital.

Grower-Participation Plan

Another evidence of the swing towards co-operatives was the announcement by Minute Maid Corp. that it would operate a grower-participation plan instead of paying cash for its raw fruit as in the past. Growers who commit all or part of their oranges to this plan will be paid 11 cents per pound of soluble solids in the oranges at time of delivery and an additional 40 cents a field box (90 pounds) to cover picking and hauling charges. John Fox, president of Minute Maid, believes this will figure out at around $1 a box on delivery.

FOREIGN PRODUCTION—Thousand boxes

	1948	1949	1950*
Oranges			
(including tangerines)	1948	1949	1950*
Brazil	35,338	35,674	31,600
Spain	22,818	21,585	30,559
Mexico	12,605	12,950	11,000
Argentina	12,400	17,550	12,000
Italy	12,858	10,273	18,198
Japan	9,126	9,800	13,575
Paraguay	8,360	5,790	4,100
Other Countries	57,145	54,177	58,918
Total, foreign	165,650	162,299	179,950
Grapefruit			
Union of So. Africa	724	776	716
Israel	1,068	1,100	1,050
Jamaica	421	436	500
Puerto Rico	525	525	525
Other Countries	1,213	1,644	1,618
Total, foreign	3,951	4,481	4,409
Lemons			
Italy	7,386	6,811	8,408
Argentina	1,400	1,440	1,500
Chile	1,167	1,146	1,167
Other Countries	3,272	3,895	4,091
Total, foreign	13,225	13,292	15,166
Limes			
Mexico	1,751	1,791	1,431
Egypt	775	800	800
Other Countries	597	600	600
Total, foreign	3,123	3,191	2,831

MARKETING PROGRESS

(Continued from page 29)

more important as food purchasers. It is said that at least 25 per cent of the groceries, 70 per cent of which are sold on Saturdays, are bought by men. The result? More impulse purchases with the attractive package enjoying an added advantage and the Winesap flaunting its full glamour over the modest Greening.

More Protective Foods

The scientific developments that have changed our way of living and of working also have their effect on food consumption. There are marked differences between the appetites of the farmer who walked behind his plow and his salesman son who rides in an automobile. The salad that satisfies the career girl spending her day at a desk and her evening before a television set, would never have sustained her grandmother on the farm. These new patterns of life have already made an impression on the sales of such food items as potatoes and breadstuffs.

As we veer away from high energy foods and eat more of the protective ones, the loads in our market baskets change accordingly. And although we want to enjoy what we eat, the knowledge that leafy vegetables contain vitamin A and citrus fruits are rich in vitamin C does influence our choice as we scan a restaurant menu; and this, in turn, influences the restaurateur's purchases too.

Enough foods have been badly hurt by a vogue for slim figures or helped by an aroused public seeking its vitamins to warrant a re-evaluation of its products by any food industry. Industries well organized to do this will find that they can energetically oppose the tides that threaten to pull them down or ride the favorable ones to greater sales.

Advertising Programs

For example, the American Bakers' Association is supporting the enrichment program as well as spending more than $500,000 a year in advertising to fight the long-time downward trend in the consumption of baked goods. In 1951 the citrus industries of Florida and California spent a combined total of $6,000,000 to get their share of the consumer's food dollar, and the packers of quick frozen concentrated citrus juices probably added another $4,000,000. The three leading soft-drink companies spent, according to published information, over $15 million in advertising last year.

Here are other published figures on last year's advertising expenditures in general magazines, farm papers, newspapers, and network radio and

television, which indicate the competition for a place on the American table:

American Meat Institute	$1,650,000
Cling Peach Advisory Board	1,000,000
Wine Advisory Board (California)	900,000
Pan American Coffee Bureau	895,000
Tea Council	750,000
Washington State Apple Commission	600,000
American Dairy Association	550,000
California Walnut Growers Association	550,000
California Dairy Advisory Board	350,000
California Prune & Apricot Growers Association	230,000
National Cranberry Association	200,000

Figures are not available for additional amounts spent for radio and television "spot announcements," store display material, dealer service men, street-car cards, recipe books, and other printed material.

Other industry organizations, spending from $35,000 to $250,000 last year include:

Olive Advisory Board of California
California Dairy Industry Advisory Board
American Cranberry Exchange
National Red Cherry Institute
California Raisin Advisory Board
California Lima Bean Growers Association
Oregon-Washington-California Pear Bureau
Maine Development Commission
California Fig Institute.

California Paves the Way

More industry advertising originates in California than in any other state. Some of this is sponsored by grower co-operatives, but in majority of instances it is organized under the California Marketing Act. Under this provision these programs originate when a majority of growers, handlers, or both make a written request to the California Department of Agriculture for assistance in solving the marketing problems of their industry. The state then levies an assessment on the crop and appoints an advisory board of producers or handlers to supervise its expenditure in sales promotion and advertising. There are no subsidies. The state merely aids each industry to finance and operate its own program.

No agricultural industry has used advertising and sales promotion on as aggressive a scale as has the citrus industry and none has paid off as dramatically. The California Fruit Growers Exchange (Sunkist) led off 40 years ago when its members had very real worries about over-production. The average citizen was then eating only 35 oranges a year. Today he consumes 105. Instead of cutting down the orchards the acreage has been trebled. Then 16 years ago Florida launched its own campaign under the sponsorship of the Florida Citrus

(Continued on page 52)

MARKETING PROGRESS

(Continued from page 51)

Commission with a fund raised by a state tax on every box of citrus produced in Florida. Last year only 40 per cent of the Florida citrus crop was shipped to the fresh fruit market and the balance was canned. In fact of all the fruit and vegetable juices canned last year, two out of three were citrus.

Intense Competition

Everyone with anything to sell has had his eye on the extra dollars that practically every family has been enjoying in 1951. The competition will continue to be intense. This puts fruit in competition not only with other foods but also with such things as television sets, automobiles, clothing, insurance, savings bonds, and vacation trips. Yet in many ways the fruit grower is in an enviable position. He can take advantage of the trend toward impulse buying—money that has to be saved for the television set is in the pocket for fruit. He can capitalize on the universal liking for fruit—no child has to be forced to eat it. And he has the doctors and nutritionists on his side—they are telling the world we should eat 150 pounds of fruit a year instead of 125.

Unfortunately the voices of the doctors and nutritionists can't reach a large enough audience and what they say will never have the impact of advertising reiteration which is probably one reason why *fruit* is pretty generally looked upon as a luxury even though no sane person ever considers *health* a luxury. Without the additional excuse that "it's good for us" pennies are pinched a little more for things which merely satisfy our appetites. So all fruit growers should realize that advertising and trade promotion programs with their sights set on enlarged pay envelopes are no longer something to be left to the big city boys. They have paid dividends for agricultural industries that were organized to sponsor long-range programs and to further protect investments by enforcing grade standards and insuring distribution.

In making an orange something more than a colorful ball in the Christmas stocking, the orange growers showed what could be done and how to do it. As one citrus leader in Florida expressed it, "The Florida growers aren't discouraged because their crop is increasing at the rate of six million boxes a year. The average person consumes only 1.4 ounces of orange juice per day. If we can increase that to 2 ounces we can sell 60 million more boxes." THE END

FIGS

Production

Production of the different varieties proved to be about normal, and in late fall it was estimated the merchantable production for the season would be as follows: Adriatics 8,750 tons, Calimyrnas 7,500 tons, Kadotas 2,750 tons, Black Missions 3,750 tons, or a total merchantable production of 22,500 tons.

Field Prices

Field prices for growers paid by packers to growers, while less than a year ago when a very short crop was produced, remained at a fair level. Based on a '90 test, prices were 18 cents for Calimyrnas, 12 cents for Adriatics, 11½ cents for Kadotas, and 7 cents for Black Missions.

Marketing Program

The marketing program for figs operates under the authority of the Department of Agriculture, State of California, and must be agreed to by a referendum vote of all the growers for its continuance each two years. A referendum was held in the spring of 1951 and growers vot d for continuance of the program, with 98 per cent of the growers voting favorably. This is probably the most outstanding grower response to a state marketing order in the history of California state marketing programs and is one of which the California fig grower is very proud.

Imports

In spite of the fact there were large rejections during the 1950 reason, foreign shippers of figs again attempted to flood the American markets with foreign figs, and to date have shipped a total of approximately 5,000 tons. So far rejections by the Food and Drug Administration inspections at ports of entry have detained more than 35 per cent of such figs, but even so the 65 per cent which will be allowed entry into this country is having a definite effect on the market for California figs.

Advertising

Growers and processors again during the 1951 season voted to assess themselves on each ton of merchantable figs for advertising and trade promotion of the product. This year emphasis was placed on the sale of Black Mission figs to the institutional trade, and the continuation of the fine cooperative program with the American Dairy Association and the major biscuit companies of America was planned and is now in effect.—*A. E. Thorpe, California Fig Institute*

From where I sit ... *by* Joe Marsh

Hammy to the Rescue!

Hammy Gilbert, the telephone linesman, often has to rescue cats who climb telephone poles—and sometimes they raise Ned when he tries to get at them. So—he's invented a nifty "cat-snatcher." Saw him use it the other day.

It's a long wooden rod with a loop on top that can be adjusted from the other end. And on top of the rod there's a little platform covered with sheepskin.

Hammy simply loops the cat at long range—lets it get its claws dug into the sheepskin and bingo! —the cat's safely on the ground.

From where I sit, there's nothing like using your head a little bit. Maybe we could take a cue from Hammy and apply some of his common sense to our "personal" opinions. If we did, we'd see why different people prefer different things—they always have and always will. Maybe *you* like buttermilk—well, my "pet" happens to be a glass of beer. Whatever the choice, it's best not to "get up in the air" but to keep our feet on the ground!

Joe Marsh

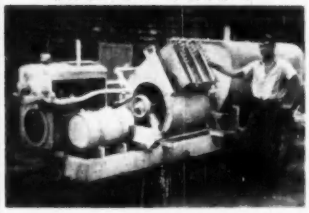
FRUIT IN THE DIET

(*Continued from page* 31)

they needed large amounts of high calorie foods. The use of laborsaving devices in the home, in industry, and on the farm; the relatively effortless means of transportation to and from work; and such sedentary recreations as movies, radio, and television have decreased energy output. Now our problem has become one of how to secure essential nutrients without taking in an excess of calories. High caloric foods have become a danger rather than a necessity for most adults. Desserts of fruit furnishing 75 to 100 calories might well replace rich pastries and cakes containing 250 to 350 calories and still maintain the American custom of dessert with the meal.

Fruit or fruit juice, furnishing vitamins and minerals along with 50 to 100 calories, might be used for between-meal snacks in the place of candy bars or other sweets, with about 250 calories. The American people are eating far more refined sugar than is considered nutritionally desirable. This sugar provides calories without accompanying essential nutrients. Fruits to replace sweets would be a decided improvement, but these fruits

HANDY ANDY



Fruit grower Roy Hulbert, Middlesex County, Holliston, Mass., has made a low pressure air-blast sprayer out of a surplus motor, a one-pipe furnace jacket, a bus axle, and other odds and ends. Hulbert mounted the bus axle on an old truck frame, added a 30 h. p. war surplus engine, and a 500-gallon spray tank. He rigged up a 60-gallon-a-minute low pressure pump and a squirrel cage-type blower with three nozzle banks of 22 nozzles. The operating pressure is 80 to 100 pounds per square inch, with the squirrel cage working back and forth at the rate of 50 strokes a minute. The sprayer, which is controlled from the tractor seat, weighs three and one-half tons and costs about $1,500. A tankful of spray generally lasts 15 to 20 minutes, depending on the distance between trees.—*Charles L. Stratton.*

should be used simply. Fancy dresses for them of sugar, cream, pastries, or cakes would once again lead to high caloric intakes and aid not at all in the solution of the problem of weight control.

Distribution Problem

Availability of fruit or fruit juices for between meals snacks presents a real problem in retailing. Many would prefer these products to those which are usually sold in industries, offices, and schools. Automatic fruit juice dispensers have been used, but the price of the juice has been higher than the competitive soft drinks, candies, and similar products available. The difficulties of handling fresh fruit are great. Nevertheless, greater use of fruits and fruit juices for this purpose would be a nutritional gain.

Some practical means of distribution should be worked out along with an educational campaign to stimulate the substitution of fruits for sweets. In a recent study with children we found vitamin C intake raised from unsatisfactory low levels to recommended levels by the simple device of giving each child an orange on his return from school. Oranges were at that time inexpensive. Other fruits might have been used with equal success, when plentiful.

People Want Fruit

In summary, it seems that fruit growers and distributors might carry on a number of educational programs to promote greater use of their products. Fruits are nutritionally desirable foods not only because of their content of vitamins and minerals, but also for their regulatory functions in the body. Fruit might well be used to replace other foods now commonly used which are high in calories and low in essential nutrients, such as sweets. Fruits may be recommended in a program for weight control, provided they are used simply, but not if they are to be incorporated into high caloric desserts, such as pastries or shortcakes. Since fruit consumption increases with income, lower fruit prices would mean more consumption.

The fruit grower should make every effort to increase production and decrease costs so that he may put his product on the market at a price which will be attractive to consumers in the lower income brackets. People really want fruit. By getting high enough yields for real volume sales and working toward more efficient distribution, the producer will increase his own income. He will also have the satisfaction of knowing that he is contributing to the health and welfare of the nation, while adding to his own prosperity. THE END

NEW FRUIT VARIETIES

(Continued from page 28)

ators, Inc. (W. E. Lammerts). Introduced commercially in January, 1951. [(Chinese Dwarf Mandarin x Rio Oso Gem) x self] x F. [(Chinese Dwarf Mandarin x Rio Oso Gem) x self]; selected in August, 1948. Fruit 2½ to 2¾ inch size; freestone, skin color good; flesh yellow, quality high; most nearly resembles Crawford. Tree very vigorous; very short chilling requirement. Flower large, 2 inches in diameter; double; deep pink; very abundant.

Daily News Four Star.—Originated in La Canada, Calif., by Descanso Distributors, Inc. (W. E. Lammerts). Introduced commercially in January, 1951. [(Chinese Dwarf Mandarin x Rio Oso Gem) x self] x F. [(Chinese Dwarf Mandarin x Rio Oso Gem) x (Babcock x Mayflower)]; selected in June, 1948. Fruit 2½ inches in diameter; freestone; high skin color; flesh white; high quality; ripens middle of June; most nearly resembles Robin. Tree vigorous; short chilling requirement. Flowers large, 2 inches in diameter; double; light pink; very abundant.

Evalyn Gem.—Originated in Yuba City, Calif., by Perry M. Reedy. Introduced commercially in 1951. Patent 921, August 8, 1950. Bud mutation of Rio Oso Gem; selected in March, 1945. Fruit more symmetrical shape than Rio Oso Gem with a smoother suture; holds color and flavor in freezing process; ripens ahead of Rio Oso Gem, which it most nearly resembles. Tree larger, more erect and more symmetrical than Rio Oso Gem.

Goldray.—Originated in Lexington, S. C., by J. Roy Cunningham. Introduced commercially in the fall of 1950. Bud mutation of Golden Jubilee; selected in 1939. Fruit identical in color, size, and quality with Golden Jubilee; only semi-freestone; ripens 10 to 14 days earlier than Golden Jubilee. Tree thrifty.

Late Kirkman.—Originated in Madera County, Calif., by William T. Kirkman. Introduced commercially in 1951. Patent 920, February 7, 1950; assigned to Kirkman Corporation, Tracy, Calif. Open pollinated seedling of Kirkman Gem. Fruit yellow; freestone; yellow suture line ripens evenly with the fruit as distinguished from the reddish early ripening suture line of Kirkman Gem, which it most nearly resembles, but has a later ripening period, mid-September to mid-October; hangs well on tree. Tree vigorous grower.

Los Angeles.—Originated in Norwalk, Calif., by the Orange County Nursery, Inc. (M. Veyna). Introduced commercially in January, 1950, by this nursery. Parentage unknown; selected in 1947. Fruit most nearly resembles Elberta in size, but rounder and of lighter skin color; freestone; flesh yellow; high canning and shipping quality. Variety now obsolete.

Merrill Late Rio.—Originated in Red Bluff, Calif., at the Grant Merrill Orchards (Grant Merrill). Introduced commercially in August, 1951. Open pollinated seedling of Kirkman Gem; selected in September, 1950. Fruit flesh yellow, freestone, does not darken upon exposure to air, sweeter and firmer than known parent; skin highly colored, same season as Kirkman Gem, 5½ weeks later than Elberta.

Merrill Rodeo.—Originated in Red Bluff, Calif., at the Grant Merrill Orchards (Grant Merrill). Introduced commercially in August, 1951. Open pollinated seedling of Kirkman Gem; selected in September, 1950. Fruit season very late, 7 weeks after Elberta and 10 days later than Kirkman Gem; flesh yellow, freestone, does not darken upon exposure to air, sweeter and firmer than known parent; skin more highly colored than Kirkman Gem.

Norwalk.—Originated in Los Nietos, Calif., by William Cole. Introduced commercially in January, 1951, by the Orange County Nursery Co., Norwalk, Calif. Parentage unknown, selected in August, 1946. Fruit clingstone; flesh yellow; most nearly resembles Sims; good canner. Variety now obsolete.

Norwalk Free.—Originated in Buena Park, Calif., by Henry Ramsey. Introduced commercially in January, 1950, by the Orange County Nursery Co., Norwalk, Calif. Parentage unknown; selected in 1945. Fruit large, flesh yellow, freestone; high shipping and canning qualities; most nearly resembles Sims. Variety now obsolete.

Southern Glow *(Waite Freeglow).* Origin unknown, but discovered in 1948 among a lot of trees purchased by Clemson College, Clemson, S. C., which had ordered trees of Fireglow; the nursery selling these trees had secured the budwood from M. A. Blake, New Jersey Agricultural Experiment Station, New Brunswick, as Fireglow. Introduced commercially in September, 1951, by the Peach Ridge Farms & Nursery (John T. Bregger), Clemson, S. C. Fruit flesh yellow, freestone, size large, attractive; ripens 3 weeks before Elberta; resembles Fireglow. Tree differs from Fireglow by having a shorter chilling requirement (700 hours) and small, non-showy flower petals.

Tropico.—Originated in Fullerton, Calif., by Lawrence W. Sherwood. Introduced commercially in 1951. Patent 924, February 14, 1950; assigned to Lawrence W. Sherwood, Sherwood Specialty Nursery, Fullerton, Calif. Parentage unknown; discovered about 1930. Fruit skin cream with blush; flesh white, juicy, firm; freestone; seed

small; quality good, non-splitting; ripens about October 1. Tree: heavy bearer; vigorous.

Ventura.—Originated in Riverside, Calif., by the University of California Citrus Experiment Station (J. W. Lesley) and the California Agricultural Extension Service, Ventura, Calif. (C. C. Delphey). Introduced commercially in 1951. Hermosa x an early yellow-fleshed freestone seedling (71-9); cross made in 1938; first released in 1946 as Seedling 202-10. Fruit: small; oblate; skin yellow and wine-red; flesh yellow, firmer than Babcock; freestone. Tree: shorter chilling requirement than Babcock; productive; leaves with reniform glands.

PLUM

Reine Red.—Originated in Moscow, Idaho, by the University of Idaho (Leif Verner). Introduced commercially in 1951. Bud mutation of Reine Claude; discovered in 1943. Fruit: color red; high dessert quality of parent variety.

Star Rosa—*(Early Santa Rosa)*.—Originated in Di Giorgio, Calif., by the Di Giorgio Fruit Corporation (Elmer Stark). Introduced commercially June 14, 1950. Patent 995; November 28, 1950; assigned July 15, 1948, to the Di Giorgio Fruit Corporation, 433 California Street, San Francisco, Calif.; trademarked "Oh Yes" Brand. Bud mutation of Santa Rosa. Fruit: larger and ripens earlier than Santa Rosa which it most nearly resembles; improved keeping quality over its parent.

PRUNE

Merton.—Originated in Peach, Wash., by Lynn Tuttle. Introduced commercially in 1950. Bud mutation of Italian; discovered about 1935. Fruit: ripens 10 days before Italian; has tendency to crack along suture some years and in some localities; most nearly resembles Italian.

RASPBERRY

Amber.—Originated in Geneva, N. Y., by the New York State Agricultural Experiment Station (George L. Slate). Introduced commercially in the fall of 1950. Taylor x Cuthbert; cross made in 1936. Fruit: amber, large, sweet; flavor good. Plant: very vigorous. Introduced for home use; not considered of commercial value.

Muskoka *(Ottawa 201)*.—Originated in Ottawa, Ontario, Canada, by the Division of Horticulture, Central Experimental Farm. Introduced commercially in 1950. Newman 23 x Herbert; selected in 1924. Bush: most valuable characteristic is its extreme winter hardiness on Canadian prairies.

Newberrys.—Originated in Port Angeles, Wash., by Frank A. Newberry. Introduced commercially in 1951. Patent 1031; August 21, 1951. Bud mutation of either Cuthbert or St. Regis. Fruit: size large; drupelets large and numerous; matures late; highly flavored.

Sonoma.—Originated in Glen Ellen, Calif., by the Log Cabin Nursery (E. E. Roach). Introduced commercially in 1951. (St. Regis x Latham) x (Cuthbertson x Latham); selected in 1947. Fruit: large. Plant: everbearing; able to withstand and bear fruit in hot summer and low humidity; bears fruit to mid-December.

STRAWBERRY

Armore.—Originated in Columbia, Mo., by the University of Missouri (H. G. Swartout). Introduced commercially in January, 1950. Blakemore x Aroma; selected in 1940. Fruit: large size throughout season; most nearly resembles Aroma in southwest Missouri. Plant: productive; sets and matures nearly all the flowers.

Earle Felten (name subject to change).—Originated in Pennsauken Township, Camden County, New Jersey, by Oscar Earle Felten. Introduced commercially in 1951. Patent 1033; August 28, 1951. Felten Sdlg. 3001 (imbred sib-crosses of Marvel x Howard 17) x Mildred Felten (Felten Sdlg. 3001 x Fairfax); selected in 1938. Fruit: shape mostly conic; size large; flesh tart, firm, juicy; most nearly resembles Mildred Felten (patent 761).

Empire.—Originated in Geneva, N. Y., by the New York State Agricultural Experiment Station (George L. Slate). Introduced commercially in 1951. Dresden x Sparkle; cross made in 1940. Fruit: skin color light, bright, very attractive, maintained throughout the season; light flesh color is a fault; ripens 4 to 6 days after Howard 17. Plant: very productive.

Erie.—Originated in Geneva, N. Y., by the New York State Agricultural Experiment Station (George L. Slate). Introduced commercially in 1951. Sparkle x Howard 17; cross made in 1940. Fruit: size large which is well maintained throughout the season; attractive appearance; ripens about with Sparkle or a week after Howard 17; its lack of high quality is a fault. Plant: very productive.

Essex.—Originated in Geneva, N. Y., by the New York State Agricultural Experiment Station (George L. Slate). Introduced commercially in the spring of 1951. Howard 17 x Deutsch Evern; cross made in 1926. Fruit: ripens 5 days earlier than Howard 17; better in quality than Howard 17; useful for the home garden, as it is too small and too soft for commercial use. Plant: vigorous and productive.

Great Bay.—Originated in Durham, N. H., by the New Hampshire Agricultural Experiment Sta-

(Continued on page 58)

NEW FRUIT VARIETIES

(*Continued from page 57*)

tion (L. P. Latimer). Introduced commercially in 1949. Simcoe x Catskill, selected in 1943. Fruit: flesh red; berries remain large throughout a long midseason; yield high. Plant: drought-resistant; crown and root system very large.

Rock of Ages.—Originated in Pennsauken Township, Camden County, N. J., by Oscar Earle Felten. Introduced commercially in 1951. Patent 1005, February 27, 1951. Seedling of Felten seedling stock and is the result of inbreeding of unnamed Felten seedling, selected in 1941. Fruit: ripens the first week in June at place of origin; size large; color bright red; flesh firm, juicy, subacid; most nearly resembles Howard 17 and Dorsett.

Trailblazer.—Originated in Glen Ellen, Calif., by the Log Cabin Nursery (E. E. Roach). Introduced commercially in 1951. Germ x a native wild strawberry) x Streamliner, selected in 1949. Fruit: large, red to core; aromatic, extremely early. Plant: very prolific.

Vermilion.—Originated in Urbana, Ill., by the University of Illinois (A. S. Colby). Introduced commercially in 1950. Redstar x Pathfinder; cross made in 1941; selected in 1943. Fruit: high dessert quality; attractive; most nearly resembles Pathfinder; in season with Howard 17. Plant: resistant to red stele root rot, leaf spot, leaf blight, and leaf scorch; productive.

NUTS

(*Continued from page 24*)

The filbert grower should receive an average of about 17 to 17½ cents a pound, orchard run, for his 1951 crop. According to the Northwest Nut Growers Association of Dundee, Oregon, this price should give the grower about the same "take home" money as last year. There is no carryover of the 1950 crop.

A recent study conducted by the Oregon Agricultural Experiment Station shows that the average cost of producing a pound of filberts in Oregon in 1949 was 14½ cents. With a probable margin of profit of only 3 cents a pound, the best way to make money on filberts is to increase the per acre yield.

The Oregon station's figure of 14½ cents a pound includes all factors, such as interest on investment, depreciation, and taxes, together with the monetary value of the operator's time. —*John H. Painter, USDA.*

Eastern Development

Native species of nut-bearing trees, including hickories, butternuts, black walnuts, and pecans, are grown throughout the eastern states. However, no large commercial industry, with the exception of the pecan, has developed with these native species. Some introduced species, particularly hardy strains of Persian or English walnuts and Chinese chestnuts, are receiving experimental attention and offer promise.

The pecan industry has been developed most intensively in Georgia. The pecan is not native to this area; southern coastal varieties having been introduced from the Gulf states. The volume of crop produced and shelled in northern Texas, Oklahoma, and adjacent regions where the pecan is native, furnish the larger tonnage.

There is a tendency for this industry to spread northward into southern Indiana and Illinois where hardy varieties produce quality nuts.

Black Walnuts

The black walnut is the most widely distributed of the northeastern nut trees and is extensively planted throughout the Mississippi Basin, extending considerably beyond its native limits. Cracking plants have been established in such centers as Kentucky, Tennessee, and Missouri.

Introduced Species

At present the Chinese chestnut is receiving attention as a possible expanding industry. Seedling strains are being developed that have nuts of good size and quality and some of the better selections, particularly those developed by the USDA—the Nanking, Meiling, and Kuling—are being grafted. Present Chinese chestnut plantings in Maryland, southern Pennsylvania, and somewhat southward appear to be the most promising.

English Walnuts

Recently more hardy types of Persian or English walnuts have been developed. These are mostly related to the so-called Crath strains which were brought in from the Carpathian Mountains through the efforts of the Reverend Paul Crath of Toronto, Canada.

Recent contests by the Northern Nut Growers Association have located a number of superior trees that are hardy in many parts of the Northeast and Middle West. The most recent variety to show promise is the Metcalf, growing in Webster, N. Y. Another promising hardy sort is the Shaeffer.

Hybrid Filberts

An important phase of nut growing in the Northeast is the interest being shown by conservation agencies and sportsmen in establishing nut plantings for wild life food and erosion control. Hybrid filberts offer a good source of wild life food that is easily established. Pennsylvania has been a leader in this project.—*L. H. MacDaniels, Cornell University.*

PRICES

Season Average Price Received by Grower

	Almonds	Filberts	Walnuts	Pecans, Improved	Pecans, Seedling
	Dollars per ton			Cents per pound	
1936	402	270	217	14.7	9.6
1937	275	217	181	10.9	5.8
1938	258	225	221	11.8	7.2
1939	209	226	168	12.2	7.8
1940	324	250	240	12.8	6.9
1941	704	306	252	12.8	6.5
1942	442	352	367	18.9	14.6
1943	732	499	478	28.5	19.0
1944	744	540	446	27.8	17.0
1945	720	551	509	29.1	20.0
1946	486	384	554	40.1	28.9
1947	558	252	381	29.5	18.4
1948	422	258	417	15.3	9.98
1949	330	319	351	21.7	16.9
1950	546	350	385	31.4	23.7
1951*	410	340	424	22.0	17.8

BERRIES & BRAMBLES

(Continued from page 25)

third crop planting a good spring clean-up to improve the yield and help the harvesting operation. An application of 200 pounds of superphosphate per acre on top of the mulch in February may promote growth and production. A light application of nitrogen fertilizer in early spring may help the yield on plants which are deficient of this element on light soils. Keep this nitrogen application light or you will cause soft berries and late ripening.

Irrigation during the ripening season may appreciably increase the yield if rainfall is short.—*Wesley P. Judkins, Virginia Agricultural Experiment Station.*

Wild and Cultivated Blueberries

According to the 1945 agricultural census, there were 43,238 acres of blueberries in the United States in 1944, which produced 7,148,148 quarts of berries. This was a low crop year for wild berries. Cultivated and wild berries are not separated in the report, but it is estimated that about 90 per cent of the acreage in 1944 was of wild berries.

Maine Largest Producer of Wild Berries

Most of the commercial wild blueberry crop of the United States comes from the New England area. Maine is by far the largest producer and in 1944 had 28,809 acres in production out of 34,400 acres for the entire area. New Hampshire was second with 3,334 acres.

Wild Berries Are Processed

The New England area has produced three good crops in a row. Maine produced 18,684,078 pounds in 1949, 15,892,674 pounds in 1950, and the 1951 crop is estimated as between the 1949 and 1950 crops. Practically all of the berries go to processing plants, mostly for canning. Processors paid 13 cents a pound in 1950 and 12.5 cents in 1951.

Wild, lowbush blueberries are harvested with rakes, or wire-fingered scoops, and the rate for picking in 1951 ranged from $1.50 to $2 per bushel. This is at the rate of about 5.5 cents per quart compared to about 12 cents or more for harvesting cultivated berries. However, there is an added expense to clean wild berries.

Interest in blueberries in Maine and New Hampshire, in particular, is keen and a moderate increase in acreage of the wild lowbush blueberry can be expected.

Cultivated Crop Steadily Increasing

The cultivated blueberry industry is comparatively new, obtaining its start about 1920, or a little earlier, in New Jersey. Leading states in the production of cultivated blueberries are New Jersey, Michigan, North Carolina, and Washington, in order of production. Other states with smaller commercial acreages include Massachusetts, Connecticut, Maryland, New York, and Indiana. It is estimated that the four leading states now have about 8,000 acres in cultivated berries, with the remaining states having approximately another 1,000 acres. New Jersey has the largest acreage with about 4,000 and Michigan is next with about 3,000 acres.

The production of cultivated blueberries in the United States in 1951 is estimated at about 22,000,000 pints, or about 20,500,000 pounds. This falls somewhat short of the production of wild blueberries in the nation, but the cultivated blueberry industry is growing steadily and probably will surpass the wild areas in production in the near future.

The average wholesale selling price for cultivated blueberries on the fresh market for all producing areas in 1951 was a little over 50 cents per quart. Processing prices ranged from 19 to 24 cents per pound, depending upon locality and type of processing.—*Stanley Johnston, South Haven (Mich.) Experiment Station.*

Increase in Processed Cranberries

The 1951 crop of cranberries was estimated in November to be 914,000 barrels, as compared to 984,300 in 1950 and a 10-year average of 728,200 barrels. Based on this estimate, the 1951 crop was the third largest crop of cranberries on record. The breakdown of this production by states compared with 1950 and the 10-year average is given below.

PRODUCTION

	Average 1940-49	1949	1950	1951*
		Barrels		
Mass.	468,600	520,000	610,000	600,000
N. J.	75,400	67,000	108,000	72,000
Wis.	137,000	200,000	219,000	180,000
Wash.	35,100	40,000	33,000	44,000
Ore.	12,100	13,400	14,300	18,000
Total, 5 states	728,200	840,400	984,300	914,000

Even though there is a comparatively large crop of cranberries, prices received in late fall were considerably better than in the previous year. Early Blacks were bringing $4 f.o.b. shipping point for a carton of 24 1-lb. Cellophane bags, or window boxes, as compared with approximately $2.75 at the same time last year.

The entire industry has been staggering under the load of a surplus of cranberries in the hands of the pro-

(*Continued on page 62*)

BERRIES & BRAMBLES

(*Continued from page 61*)

cessors for the last three years. In 1951, however, the processors had reduced their carryover to a normal quantity needed to fill the pipelines of distribution.—*Harold E. Bryant, American Cranberry Exchange.*

BRAMBLES

IOWA—Principal red raspberry acreage is in farm and home gardens. Spraying costs averaged $5.88 per acre per spray. Lime sulfur was used most as a spray material. About 40 per cent of the growers applied two or more sprays during the season.

KENTUCKY—The commercial wild blackberry industry is of considerable significance as thousands of pounds of wild fruit are harvested each year. Much of this crop is handled locally in deep freeze units for the pie trade, and a heavy tonnage is picked up at crossroad towns for delivery to the commercial wineries near Cincinnati. In Berea, sales have run from $35,000 to $110,000 annually during the last few years.

OREGON—Boysen, Logan, Young, and Evergreen are the leading trailing blackberries and constitute about one-half the bramble acreage. Munger and Plum Farmer are the principal black raspberries grown, mostly for processing. Red raspberry production is divided between processing and fresh shipment. A considerable tonnage of reds are produced for fresh out-of-state market, principally to California.

TENNESSEE—The blackberry is the leading wild fruit. There is practically no commercial acreage. Red raspberries are grown almost entirely for home use and local markets. Black raspberries are short lived and limited to small plantings. Cumberland is the leading variety.

UTAH—Latham is the leading raspberry. While most of the crop is sold in the local market, some has been shipped by air to points as far away as Dallas, Tex.

VIRGINIA—Raspberries are a minor crop because of anthracnose and virus diseases. Cumberland and Logan are the most commonly grown blacks, with Latham the most important red. The present crop is sold almost entirely on the local market.—*A. S. Colby, University of Illinois.*

MALABAR FARM, near Mansfield, Ohio, probably one of the best known and publicized farms in America, owned and operated by Mr. Louis Bromfield. Here Mr. Bromfield carries out many of his broad, basic concepts and experiments towards restoration and maintenance of fertility and productivity of the soil. Operating a wide diversity of power farming equipment, he is exacting in his demands for dependable performance. Recognizing the importance of spark plugs in maintaining this equipment in top condition, his general manager says . . .

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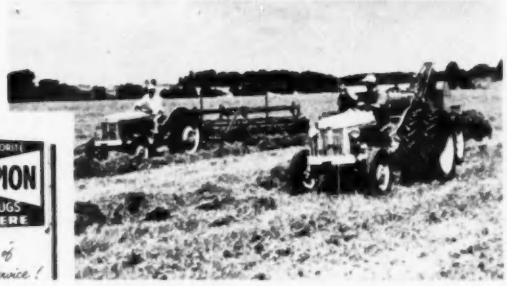
Ken Cooke, General Manager of Malabar, and Mr. Bromfield plan their work months and even years ahead. No mere theorist, Mr. Bromfield is to be found wherever work is at its height.

Malabar is practical proof of the soundness of Mr. Bromfield's deep convictions on what constitutes sane agricultural practice, which is so interestingly told in his books *Pleasant Valley* and *Malabar Farm*.

Malabar comprises over 1000 acres of what was once considered worn out land. Restoration to high productivity has been a matter of serious study, careful planning and systematic feeding of the land, largely through grass crops.



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NOW you can produce more clean fruit with simple, easy, one-product control of codling moth, red-banded leafroller, leafhoppers, European red mite, red spider mite, San Jose scale, Forbes scale, and similar pests.

Black Leaf 253 is big news for fruit growers! It simplifies summer spraying, by replacing other more complicated and more expensive cover spray programs with one highly-effective, low-cost product.

This superlative new spray material is Black Leaf *Tobacco Base* "impregnated" with 25% of DDT and 3% of Parathion by an exclusive process. Thus Black Leaf 253 is equipped to provide "double-barrel" control. During years of research and development, Black Leaf 253 topped all other cover spray programs tested, in TOTAL CLEAN FRUIT.

How to Use Black Leaf 253

Start your summer spray program with Black Leaf 253 and continue to use it throughout the season, as often and as long as necessary. Each application should be thorough, especially if red-banded leafroller or similar pests are a problem.

Use 2½ pounds in 100 gallons of water and repeat at the cover spray intervals recommended by local authorities. Use 2 pounds, if the interval between sprays is shorter than usual or if infestation is unusually low. Use 3 pounds, if the interval between sprays is longer than usual, or if infestation is severe.

Make such specially-timed, supplemental applications as may be recommended in your area to control apple maggot, curculio, or red-banded leafroller.

Do not use Black Leaf 253 within 30 days of harvest. When sprays must be applied to protect early varieties just before or during harvest, use 2 to 3 pounds of Black Leaf 155 *(fixed nicotine)* which leaves no undesirable chemical residue.

Dustless. There are no billowing clouds of dangerous dust, when you handle Black Leaf 253. Scientifically treated to eliminate dust, Black Leaf 253 is easy to use. As the tank is refilling, the desired quantity can be dumped into the water where the agitators disperse it quickly and uniformly.

Compatible. Black Leaf 253 is compatible with all the fungicides and other materials generally recommended in combination with DDT and Parathion, such as wettable sulphur, ferbam, etc.

Less residue. Black Leaf 253 provides excellent control with the least possible chemical residue and essentially no visible residue when the fruit is harvested.

Black Leaf 253 has been used very successfully on all important varieties of apples. When spraying McIntosh or Golden Delicious, susceptible to Parathion injury, follow recommendations of local authorities.

For additional information on Black Leaf 253 and other members of the famous Black Leaf family of pest control products, communicate with the nearest office below. Your inquiry will receive prompt attention.

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